MYRMECIA

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THE COVER

The cover depicts *Tenodera australasiae*, one of the best known common Australian mantids. The illustration, which won the Student Colour section of the 1996 AES Scientific Illustration Competition, was prepared by **Sharyn Wragg** who also won first prize in the Student Black and White section of the same competition.

MYRMECIA

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In addition, loose inserts and pamphlets supplied by the advertiser will be included in a mailout for $100 per item. The items should be of a size which will not project beyond the pages of *Myrmecia*.

NOTICE

Statements made in *Myrmecia* do not necessarily represent the views of the Australian Entomological Society. Items printed herein should not be reproduced without permission of the author of the material.

COPY DEADLINE FOR NEXT ISSUE

Material for publication in the November 1997 issue of *Myrmecia* should be in the hands of the Editor at the address below by **Friday 24 October 1997**. Submission to fletchm@agric.nsw.gov.au is preferred but submission on IBM-compatible floppy disk in a major word processing format, or by fax, letter or carrier pigeon to the address below is acceptable.

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1992 Dr E.S. Nielsen
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EXECUTIVE REPORT

MEETINGS

The Core Executive met on 21 May, 11 June, and 24 July 1997

NEW MEMBERS

Elected as Full Member

Daniel KAMIEN, 21 Skipton Way, City Beach, WA 6015 (dkamien@cyllene.uwa.edu.au). Research assistant at UWA working on acoustic communication, sexual selection, especially of tettigoniids.

Stephen J. FELLENBERG, 11 Appaloosa Crt, Blarimount, NSW 2559. Research officer at UWS Macarthur working on phasmids and teaching (sjfellenberg@uws.edu.au).

Dr Simon J. DUFFIELD, CSIRO Division of

Entomology, Private mail Bag Box 3, Griffith, NSW 2680. Insect ecologist (simon@ento.csiro.au).

Dr Jasbir MANN, Scientific Collections Unit, Orange Agricultural Institute, Forest Rd, Orange, NSW 2800. Systematics of typhlocybine cicadellids, biology of Chrysomelidae. (mannj@agric.nsw.gov.au).

Mr Allan SPESSA, State of Environment Reporting Unit, Environment Australia, GPO Box 787, Canberra, ACT 2602. Population and behavioural ecology of colletid bees. (aspessa@dest.gov.au).

Elected as Student Member

Andrew WEEKS, Latrobe University

Dave BENNETT, Latrobe University

Lucas ZOLTAN, CRC Forestry, University of Tasmania

Karl Eadwyn BRENNAN, Curtin University of Technology

Tracey Anne BJORKSTEIN, Latrobe University

Cameron Ewart WEBB, University of Sydney

Tonia LOUGHREY, Gatton College

Hanna REICHEL, Australian National University

Andrew WARD, James Cook University

Marie YEE, University of New England

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Ms JA BEAN, PO Box 7014 Toowoomba Mail Centre 4352

Mr Gordon BERG, Team Leader, IPM Ornamentals, Institute for Horticultural Development, Private Bag 15, south east Mail Centre, VIC 3176. (bergg@knoxy.agvic.gov.au)

Mr GJ BOWMAN, 2/14 Coogee St, East Ballina NSW 2478

Mr MG CAIRNS, 4/25 Forster St Heidelburg Heights VIC 3081

Bruce CHESSMAN, Dept of land & Water Conservation, PO Box 3720, Parramatta, NSW 2124

Professor Richard DREW, Faculty of Environmental Sciences, Griffith University, Nathan Campus, QLD 4111

Dr DL EMERY, CSIRO Div of Animal Health, PMB1 Glebe NSW 2037

Ian Guthrie FAITHFULL, 16 Nabilla Avenue, Seaford, VIC 3198.

Dr Scott FIELD, Dept Entomology, Hebrew University of Jerusalem, PO Box 12, Rehovot 76-100, Israel

Mr GR FROWD, International House, Locked Bag 8844, South Coast Mail Centre NSW 2521

Dr Brian GUNN, Novaritas Crop Protection, PO Box 1, Glengarry, WA 6023

Ms Lynda HAMILTON, 39 Yambil St, Griffith NSW 2680

Dr Bijan HATAMI, Isfahan University of Technology, College of Agriculture, Dept of Crop Protection, Isfahan, Iran

Mr Alistair HUNT, CRC for Temperate Hardwood Forestry, GPO Box 252C, HOBART TAS 7001

Ms RK HUWER, L, Ffelgasse 17, WEISBADEN

Dr Peter JAMES, South Australian Research & Development Institute, GPO Box 397, Adelaide, SA 5001

Ms A KENNETT, Agristudies, PO Box 5630, Maroochydore, QLD 4558

Vince PETTIGROVE, Melbourne Water, Yarra Region, PMB 1, PO Mitcham, VIC 3132

Ms Roslyn SCHUMACHER, 10 Woodley Grove, McLaren Vale, SA 5171

Dr Ebrahim SOLEYMAN-NEZHADIYAN, Dept Crop Protection, University of Ahraz, College of Agriculture, Ahraz, Iran

Aleks TERAUDS, retiring to PO Box 118, Rosny, Tas 7018

Mr Lance WILKIE, 1 Jermyn St, Hyde Park, Townsville, 4812

FROM MINUTES OF THE CORE EXECUTIVE

Much of the business continues to revolve around changes to the journal, including discussions with publishers Blackwells & CSIRO Publishing, and to the poor financial position of the Society. **Alison Roach** has left the Business Manager's position and **Mike Jefferies** has taken over the position. Because of this changeover we are behind in auditing and taxes.

A report from the Chief Editor noted that, in 1996, there was an increased level of withdrawing and lapsing of manuscripts, but there were more submissions of new manuscripts to offset this. The report called for more viewpoint papers. 1996 flow: received = 69; accepted = 66; rejected-withdrawn-lapsed = 7; with technical editors = 49.

"Darwin began with beetles" posters will be taken to the AGM and sold for $5.00 each. Posters have already been sent to many institutions. **Jennifer Marohasy** has resigned from post of Promotions Officer. South Pacific members are interested in having a representative councillor from their area. The constitution allows only for regional councillors from Australia and representative councillors from other societies. Two proposals are being considered: the South Pacific members could form their own society and have a representative appointed through that route; if they are only concerned about having a voice in *Myrmecia*, they could appoint their own correspondent. Only the second option was deemed appropriate.

The Treasurer notes that there are still many members who haven't paid fees ($11,000 worth). Publishing a list of their names in *Myrmecia* may encourage unfinancial members to pay up.

A report on the current state of next year's joint AGM with AAERC at the University of Queensland was presented. A logo and letterhead designed by **Geoff Monteith** were admired by all. The AES meeting will run from 26-29 Sept 1998, and that of the AAERC from 29 Sept-2 Oct.

New Council Members and Executive Appointments

Mike Jefferies, Business Manager

David WALTER
Honorary Secretary

A Proposal from the Executive to change how we publish the Journal

The Australian Journal of Entomology is one of the principal means by which the society fulfils its charter of promoting the advancement and dissemination of entomological knowledge. The Journal has served this purpose well over the years.

One of the key tasks of the current executive has been to up-grade the profile of the Society's flagship. Members may have noticed an expansion of the editorial board to include expertise from around the country and overseas. There have been changes in the layout of papers within the Journal and other improvements are planned. One very important initiative to ensure that the Journal remains of a "...scientific standard that will ensure the interests of entomologists in other countries as well as in Australia" (see page 1 constitution, article 4d), is for the Journal to be produced by an internationally recognised publishing house. A number of factors have prompted your executive to proceed along this path - some might say once more! Many will recall attempts to make this change back in the mid-eighties. At that time it was decided not to proceed. So why raise this issue again?

We outline arguments for the initiative below. No doubt some will argue against such a change. We urge you to present your views one way or the other, either directly in correspondence to the Executive, through your local council member or in debate at the next AGM in Melbourne. Here the issue will be formally put to the full council and at the AGM of the society for a vote.

Journal Profile

The Journal is essentially a local publication, and although achieving national prominence, generally fails to attract "the best" papers from members. Many members appear to prefer to send papers overseas and to higher profile Journals. This generates a feedback loop, ie "I don't send my best papers to the Journal because it doesn't attract the best papers". Thus, the Journal's impact rating declines and fewer of the best papers get sent there...and so it continues. This spiral has to be broken. Only by raising the international profile of the Journal can we hope to attract the best papers from members both locally within Australia and from the region. The Journal should increasingly aim to become the regional leader and to attract papers from the South Pacific and Asia - and thus ensure the interest of entomologists world-wide.

Costs

The current cost to members of producing the Journal (and the bulletin) is around $46 per member. These costs have been creeping upwards and so far have been absorbed but increases in subscriptions are inevitable. (A detailed analysis of costs will be presented at the next AGM). Increases in costs can in part be met by greater "sales" of the Journal, either indirectly by increasing membership, or directly by increasing subscriptions from libraries and research organisations. This requires vigorous marketing both locally and overseas. The society has not been particularly strong on marketing! Again an international publishing house would

enable us to expand our market and minimise costs.

Remote access to the Journal

As members will be aware, we live in the Information age - or whatever the current jargon is! Increasingly, communication and access to publications will be by electronic means. Does the Society wish to develop its own electronic publishing? This would easily be a full time job and absorb large amounts of Society funds. We would need to ensure electronic access in perpetuity! Far easier to be part of an existing publishing house with a well developed electronic delivery and marketing strategy.

There are other advantages in that the onerous tasks currently undertaken by the Business Manager and many tasks of the Editor as they pertain to the Journal will be greatly lessened. The editor can concentrate on the scientific content of the journal rather than formatting etc.

The Executive has laid down strict criteria that need to be met for any commercial offer to be considered:

1. editorial control of scientific content of papers accepted for the Journal must remain with the society through the Editor and Editorial Board
2. cost of changes must be kept to a minimum and preferably within current subscription levels
3. the international profile of the journal must be substantially increased.

To pursue these changes the Executive will present detailed submissions from Blackwells International and CSIRO Publications for council and members to consider at the next AGM in Melbourne. If required, representatives of one or both of these organisations will be available to make presentations in Melbourne.

Two matters will need to be resolved:

(1) Do we change how the Journal is published? and, if yes,

(2) which publishing house to go with?

There are no constitutional impediments to this change. The objective of the Society is that a Journal be published and the Constitution does not specify how it be published. Any contract with a publishing house would need to comply with the Society's Constitution and By-Laws

Myron ZALUCKI
Vice President

Conservation Committee

In parallel with **Robin Gunning**'s efforts in New South Wales*, **Jonathan Majer** has been appointed to the Western Australia Threatened Species Committee. A number of terrestrial invertebrates have been, or are in the process of being, listed. The Committee now invites nominations from scientists and other members of the public. Jonathan has electronic copies of the Nomination Form and can email or post them to anyone who requires one. His email address is:

imajerj@info.curtin.edu.au

Jonathan MAJER
Convenor, Conservation Committee

* See page 34 for more information on the Threatened Species Conservation Act.

REGIONAL NEWS

AUSTRALIAN CAPITAL TERRITORY

Australian Biological Resources Study

News from ABRS is that the enhancement to "Platypus" will be ready for release shortly. **Alice Wells** has resumed work on the Zoological Catalogue series. In addition to working on volumes produced under the old system, she is test-running a first volume produced using the Platypus data-basing program. The contrast is impressive and augurs well for future production.

Jean Just attended the opening of the new collection facilities at the Orange Agricultural Institute.

Australian Plague Locust Commission

Most APLC staff spent at least part of winter in annual diapause (leave) though one or two avoided the cold by migrating to Europe. In July, **Gordon Hooper** spent several days in Cairns discussing fruit flies, and **David Hunter** attended a meeting of the QDNR Locust Biocontrol Committee. A program review has taken up considerable amounts of **Graeme Hamilton**'s time and we are all hoping for a favourable outcome. **Dennis Hopkins** of SARDI was a member of the review team and spent a week in Canberra for his troubles. From the field, long-serving **Brett Dalliston** (Broken Hill) has left us for NSW Ag, **Hugh McNee** (Longreach) has taken leave-without-pay to complete his degree, and **Heath McRae** will be OIC of Longreach base for

Australian Quarantine and Inspection Service

AQIS is currently swimming against the trend of the public service and is in the middle of a recruitment exercise, particularly in the plant quarantine policy area. The increase in staff is in response to the report on AQIS released late last year. There is no projected increase in entomologists in the States, however in Canberra there is an expected increase in entomologists in the policy area.

Plant Quarantine Entomologists and Northern Australia Quarantine Entomologists are meeting in Brisbane this year for their annual meeting in the week of 22 September. In March **Bill Crowe** was appointed as the quarantine Entomologist in Queensland.

Glynn MAYNARD
Regional Councillor

Australian National Insect Collection

Ebbe Nielsen has been elected a foreign associate of the U.S. National Academy of Sciences for his contributions to science, particularly biosystematics. Membership of NAS is considered one of the highest honours that can be awarded to a scientist.

The **OECD Megascience Forum** has established a Working Group on Biological Informatics which includes a subgroup on biodiversity informatics. **Ebbe Nielsen** is head of the Australian delegation to the Working Group and a delegate to the biodiversity subgroup. The Group met in Canberra in late April/early May and the ANIC and other institutions in Canberra received visitors from many OECD countries during an informatics field-day.

Mike Dallwitz received the CSIRO Medal for his work developing the DELTA taxonomic programs, and the recently published *Checklist of the Lepidoptera of Australia* edited by **Ebbe Nielsen**, **Ted Edwards** and **Vanna Rangsi** and published by CSIRO Publishing won this year's Whitley Book Award.

In late April the Hon **Peter McGauran**, Minister for Science and Technology visited CSIRO Entomology and spoke of the need to quantify the number of species of plants and animals on earth; **Sir Robert May**, Chief Scientific Adviser to the UK Government and Head of the UK Office of Science and Technology, spoke at the same meeting and visited the ANIC.

Neil Chalmers, Director of The Natural History Museum, London, visited the ANIC in early June during his tour of Australia. **Marie-Claude Larivière** (NZAC, Landcare Research, NZ) and **Tavis Potts** (University of Tasmania) visited the ANIC in June, and **Jorki Mouna** (Natural History Museum, Helsinki, Finland) and **Armin Moczek** (Duke University, USA) visited in July. **Barry Longstaff**'s busy schedule has had him demonstrating computer-aided learning software in Qld and SA and around vineyards in NSW. **Roy Norton** (State University of New York, USA) and **Bruce Halliday** have been awarded a McMaster Fellowship to support a six month visit by Roy. **Rob Floyd** will be in Laos, Vietnam, Thailand, and Malaysia in late July/early August conducting fieldwork and training for an ACIAR project on plantation pests.

Ian Wright and **Ian Reid** completed a 10,000 km trip surveying dune lakes on Fraser Island and Cape Flattery, accompanied some of the way by **Peter Cranston** and **Ben Gunn**. **Wendy Lee** has been databasing beetles at QDPI with **Chris Reid**. **Steve Shattuck** and **Natalie Barnett** have completed their "Australian Ants" manuscript. **Hari Sutrisno**, from Bogor, Indonesia, has just begun a three-year program studying Lepidoptera for a Graduate Diploma and MSc, supervised by **Marianne Horak** and **Penny Gullan**.

CSIRO, Division of Entomology

Joanne Daly attended two workshops in the UK during April, "Integrated Resistance Management" at Rothamsted Agricultural Station and then the British Crop Protection Meeting "Microbial Insecticides: Novelty or Necessity?" at the University of Warwick. Joanne went on to the International Atomic Agency in Vienna to discuss sterile male programs for screw-worm control, and the following week attended with **Paul Wellings** the opening of the Australian/Malaysian Screw-Worm facility in Kluang, Malaysia. **Rod Mahon** is officer in charge of the project.

On the whitefly front **Paul De Barro** is continuing his surveys for silverleaf whitefly geminiviruses and whitefly parasitoids. He recently spent a week in Kununurra, WA adding to the collection. He will be off shortly to coastal Queensland to review infestations in the Burdekin/Bowen region.

In Jakarta **Ray Akhurst** visited the Agency for the Assessment and Application of Technology (BPPT) and the Agency's research facility at

Puspitek-Serpong to discuss Indonesian-Australian biopesticide research collaboration. **Bruce Hammock** (UC Davis, USA) and **Don Hendry**, (Rhodes University, Grahamstown, South Africa) are sabbatical visitors at CSIRO Entomology until August and September 1997 respectively. **Vern Ward** (University of Otago, NZ) visited **Karl Gordon** and **Terry Hanzlik** during July. **Terry Hanzlik** will talk on "The tropism and replication of the *Helicoverpa armigera* stunt virus (Tetraviridae)" at the Society for Invertebrate Pathology annual meeting in Banff (August 24-29), and **Karl Gordon** will present a paper entitled "Infection of lepidopteran larvae with a small RNA virus induces massive shedding of midgut cells" at the 4th International Workshop on the molecular biology and genetics of the Lepidoptera in Crete during August.

Australian Defence Force Academy

Alistair Drake spent the first half of 1996 in Texas on sabbatical with USDA-ARS, attending conferences and meetings in Austin and Atlanta, and catching up with former entomological visitors to Australia **Jimmy Raulston**, **Joe Riley**, and **Stuart Gage**. He also contacted **Chunshi Cui**, his former research assistant at CSIRO.

A Large Wooden Crate (LWC) accompanied Alistair to the US, containing an IMR (Insect Monitoring Radar). **Ian Harman** joined them in the Lower Rio Grande Valley, where the USDA was running three entomological radars. The LWC and the IMR returned to Canberra with a gigabyte of data which Ian is now analysing. Alistair has also developed "The Radar Entomology Web Site" http://www.adfa.oz.au/~vad/trews/.

Marcus MATTHEWS
Regional Councillor

NEW SOUTH WALES

Centre for Entomological Research and Insecticide Technology (CERIT) University of New South Wales

In May, a contingent of staff from CERIT visited **Richard Russell** (Director), **Marc Klowden** (mosquito expert on sabbatical from University of Idaho) and other staff at the Medical Entomology Unit, University of Sydney at Westmead Hospital. A range of subjects was discussed but especially mosquito rearing, mosquito repellency, mosquito-borne disease and the organisation of our "Insects and human health" symposium. Thanks to **Merilyn Geary, Stephen Doggett, Cameron Webb, John Clancy, John Haniotis, Marc Klowden** and **Richard Russell** for their presentations and for facilitating the visit.

Mads Mourier (CERIT Visiting Fellow from Denmark) has taken a few weeks off from his research tasks to do some sightseeing along the east coast of Australia, he will be returning from Cairns in August. **Merilyn Baker** has returned to work after a period of parental leave.

Information regarding the Industry Briefing Symposium "Insects and Human Health in Australia" has been mailed out to a variety of interested bodies including government offices, hospitals, industries and Universities. If we have overlooked sending the information to you please contact CERIT, Biological Science, UNSW, Sydney 2052 or email CERIT@unsw.edu.au or Fax (02)9385 0346. An advertisement for the symposium appears elsewhere in this issue.

Chris Orton and staff have been busy on CERIT's industry liaison program over the past few months with a number of Company visits. These have included Bayer Australia (**Graeme Smith** and **Vincent Tan**); AgrEvo (**Phil Morrow** and **Martin Horwood**); Virbac (**Paul Martin**); Rhône Poulenc Rural (**Kay Khoo**, **Bruce Howie** and **Jason Nash**); Novartis (**Tom Friedel** and **Fraser Bowen**); Mallinckrodt (**Roger Sargent** and **Steve Burman**). Recent visitors have included: **Pat Barone, Ian Adams, Michael Gibian, Bryan Lett**, Reckitt & Colman Australasia; **Ron Hill, Garry Hannon, Neil Galbraith, Annabel Duncan**, CSIRO Molecular Science; **Koogen Kander, Peter Dein**, Australian Specialty Chemicals; **George Holan**, BRI.

Stephen DOGGETT
Regional Councillor

NSW Agriculture
Orange Agricultural Institute

The new building for the Scientific Collections Unit was officially opened by the Hon **Bob Carr**, Premier of NSW on 22 July, together with the Hon. **Richard Amery**, Minister for Agriculture and the Hon. **Ernie Page**, Minister for Local Government. Entomological colleagues, local dignitaries, NSW Agriculture staff and representatives of local schools and societies attended the opening and enjoyed both a tour through the building and an excellent afternoon tea. Despite the fact that it was mid-winter, the weather was sunny and warm as

OPENING OF NEW SCIENTIFIC COLLECTIONS BUILDING IN ORANGE

NSW Minister for Agriculture, Richard Amery, introduces the Premier of NSW to unveil the plaque [photo: Andrew Beattie]

Kevin Sheridan, Director General, and Bob Carr, Premier of NSW, pose in the winter sun of Orange with Murray Fletcher. [photo: Andrew Beattie]

OPENING OF NEW SCIENTIFIC COLLECTIONS BUILDING IN ORANGE

Eberhard Schicha, former curator, Vic Edge, former Director of BCRI, and Graham Thwaite, formerly the lone entomologist at the Orange Ag. Institute. [photo: Andrew Beattie]

Murray Fletcher shows the Minister, Richard Amery, and the Premier, Bob Carr, part of the insect collection. [photo: Andrew Beattie]

OPENING OF NEW SCIENTIFIC COLLECTIONS BUILDING IN ORANGE

Clockwise from top left: The Premier examines the displays in the collection room; Peter Gillespie speaking with local member Russell Turner and Alan Anderson, Principal of Kinross Wolaroi School; Jasbir Mann meets the Minister; John Macdonald shows Eberhard Schicha that the mite collection has arrived intact.
[photos: top left, Andrew Beattie, others, Karen Radburn, OAI]

Mr Carr unveiled a plaque attached to "Charlie" the rock. Notable entomological attendees were **Eberhard Schicha**, former curator of the mite collection who had originally pushed for a building at BCRI Rydalmere to house both the entomological collections and the plant pathology herbarium together, and **Faith Evans** who travelled up from Sydney by train for the day. Four members of the NSW Agricultural Scientific Collections Trust, who own the collections, were present, including **Dinah Hales** (Macquarie University) and **Rob Brown** (AMACS Ltd, Melbourne). The ANIC was represented by **Ebbe Nielsen, Ian Naumann, Ted Edwards** and **Max Day** who travelled up from Canberra with **Jean Just** (ABRS) and **Bob Makinson** (National Herbarium). **Bob Spooner-Hart** represented the NSW Entomological Society. Other entomological colleagues present included **Max Moulds** (Australian Museum), **Andrew Beattie** (Univ. Western Sydney), **Jack Simpson** (State Forests NSW), **Richard Russell** (Westmead Hospital) and **Geoff Gurr** and his students from Orange Agricultural College.

Since the opening we have had visits from **Peter Cranston, Penny Gullan** and **John Jennings**, who timed their visits to score the Fletcher housewarming party as well. **Margaret Wiliams** (Tasmanian Dept of Primary Industry and Fisheries), **Stewart Learmonth** (WA Dept of Agriculture), **Dave Williams** (Agriculture Victoria), **Frank Page** (Qld Dept Primary Industries), **Richard Vickers** (CSIRO Brisbane) and **Adrian Nicholas** (Univ. Western Sydney, Bathurst) also had a tour through the collections building in early August. They were in Orange for two meetings on apple pests organised by **Graham Thwaite**. One meeting concentrated on codling moth resistance management and the other was for the WWAPM project, an interstate investigation of weevils, woolly aphid and powdery mildew on apples. Special guest for the meetings was **Tom Blomefield**, from INFRUITEC, Stellenbosch, South Africa.

Geoff GURR
Regional Councillor

Murray Darling Freshwater Research Centre

John Hawking has been invited to the 14th International Symposium of Odonatology in Maribor, Slovenia. John will be presenting a seminar on the conservation status of dragonflies from Australia. During his stay in Europe John will also have the opportunity to look at British Museum specimens as well as specimens held in Holland. He will also take some vacation time in Europe after a busy year which has included the publication and launch of a "Colour Guide to Invertebrates of Australian Inland Waters" by John and **Felicity Smith.** The guide is a great success and congratulations are in order to John and Felicity.

Jane Growns is busily involved with a Campaspe River project and I am sure she is wishing she had more time to work on her favourite subject - mites!

The river floodplain interaction project led by **Terry Hillman** has just been set up for sampling to commence. Macroinvertebrate sampling will take place on a monthly basis at the river and billabong sites, situated in the Wagga area.

Rob Walsh from Tasmania is currently visiting the centre. Although Rob is usually involved with zooplankton, he is in the process of identifying a collection of aquatic insects from regions of Tasmania. The aim is to increase the macroinvertebrate collection currently held at the Queen Victoria Museum as well as improving regional identification keys.

John HAWKING
Regional Councillor

NORTHERN TERRITORY

Parks and Wildlife Commission of the NT
Wildlife Management Unit

Colin Wilson has been chasing rare and endangered invertebrates for possible inclusion under a proposed new NT Endangered Species Act. He has encountered a deal of disquiet from a number of taxonomists who are worried that the NT may follow an apparently disastrous Queensland model. Colin is keeping his list hidden from his bosses (who aren't expected to be reading this, unless one of you lot dobs him in) until he gets a better idea of the nature of the proposed legislation.

On a recent trip to West Timor, accompanied by quarantine botanist **Barbara Waterhouse** (Doug's niece), Colin found that his *Chromolaena* gall fly, *Procecidochares connexa*, had spread a couple of kilometres in a year but was not doing much damage to the weed, probably due to the severe

and extended dry season experienced at the lowland site. Colin and Barbara relocated some galls into the cooler, wetter hills. Locals in the hilltop town of Soe were startled awake as Colin discovered during his early morning ablutions that the mandi (washing trough) in his hotel room had no hot water tap.

Territory Health Services
Medical Entomology Branch

The high mosquito numbers associated with the heavy rains in Alice Springs and Barkly regions earlier in the year has resulted in 2 confirmed recorded cases of Kunjin virus disease. A suspected fatal case of Australian encephalitis acquired in Alice Springs has just been reported and further details will be followed up. This would be the first fatal case in Alice Springs since 1974 and is the first fatal case in the NT since 1993. Transmission occurred despite a fogging program in Alice Springs and media releases for the affected regions.

The major project for rectification of mosquito breeding sites created by bomb craters in the Leanyer Swamp area has continued with surveys being conducted for unexploded ordinance.

Peter Whelan is busy completing a 12 month consultancy for an urban development in the satellite city of Palmerston. This study is being used to determine the effectiveness of a buffer zone to restrict mosquito and biting midge dispersal. Additional reports waiting to be written include a baseline monitoring report for Shoal Bay (Darwin) and the new training area at Bradshaw Station (near the WA border) for the Department of Defence.

The branch wished **Ross Nowland** congratulations on his recent wedding to **Julia Woods** - breaking many local girls' hearts in the process. **Brian Montgomery** remains knee deep in the planning process and has recently finalised the Brocks Creek gold mine baseline mosquito monitoring report. **Gwenda Hayes** has returned after extended study leave and is making steady progress on the database. **Barbara Love** and **Jane Carter** (with Ross) have been very busy keeping mosquito numbers down over recent months and maintaining the various MEB programs.

NT Museum

Graham Brown has been doing some interior decorating of the Natural History Gallery at the Museum. Apart from the planning he has been involved in numerous light trapping expeditions with **Steven Gregg** to places such as Fogg Dam, Wildman River and Litchfield. Graham also spent a week in Bali where he ensconced a few hymenopterans including 1 tiphiid. However, one large vespine (*Vespula* sp) exacted revenge on behalf of the thousands of its brethren ethyl acetated by Graham over the years and made his hand throb for 12 hours.

Environmental Research Institute of the Supervising Scientist

Not a lot new on the entomology front at ERISS in the last few months with more time being spent writing up data than out in the field. **Ruth O'Connor** and the ERISS team have also been involved in commenting on the draft EIS for the proposed mine at Jabiluka. Very frustrating that not enough information is available on most insects to allocate them conservation status and determine whether developments such as these may pose a threat. Interestingly, however, **John Hawking** from MDFRC in Albury reckons the sandstone outliers on the mining lease are home to at least one lestid odonate of limited distribution.

Our ability to identify the huge variety of aquatic coleoptera of the region has taken a giant leap forward thanks to **Chris Watts'** efforts with our reference specimens. He even found a couple of hydrophilid larvae that he hadn't seen before. Hopefully a few more interesting specimens will turn up as **Lisa Thurtell** processes some creek and billabong samples taken on her last trip to Maningrida in Arnhem Land.

Department of Primary Industry and Fisheries
Quarantine & Inspection Branch

Ted Fenner spent the second half of April in the Philippines looking at pest risks associated with the import of Philippine mangoes to Australia. An important aspect was observing the mango pulp weevil (MPW) problem in the southern part of Palawan Island. This is the only part of the country in which this serious pest is known to occur and, as well as observing MPW in the field, Ted studied the quarantine measures implemented by the Philippines authorities. These are aimed at regulating the movement of mangoes to contain the weevil's spread on Palawan and prevent its dispersal to other islands.

The second phase of this visit was to observe the preparation (particularly involving vapour heat treatment against fruit flies) and packing of mangoes in Manilla for export to Japan. Notwithstanding a hectic schedule, Ted did manage the occasional swing of net at butterfly....but only when he could wrest the net away from one or other of his Filipino counterparts.

Weeds Biocontrol Branch

It's definitely dry season in the Top End. The biocontrol team of the weeds branch is busy with rearing and releasing biological control agents. **Leonie Wittenberg** from CSIRO (Brisbane) visited **Bertie Hennecke** for the release of the dry season rust *Diabole cubensis* on mimosa. **Andrea Wilson** put quite an effort into the new aquatic weed *Cabomba caroliniana* which has been discovered in just one lagoon in the top end. Together with **Grant Flanagan**, Andrea organised an awareness campaign and an eradication program for this weed. Andrea and **Bert Lukitsch** both managed to squeeze in a visit to CSIRO Long Pocket during their respective holidays in Brisbane.

Northern Australian Quarantine Strategy Branch

Robin Eichner and **Glenn Bellis** are still accumulating all sorts of gear for their new demountable but not a sod has been turned to place the demountable on. They both helped out the Western Australian NAQS team on a survey of Kalumburu last month and were rewarded by being taught a few words of the unique language they speak in that State. They now know that a bogey is not something that exudes from children's noses or appears on golf score cards and a jump up has nothing to do with aerobics.

Entomology Branch

The dry season is here in earnest with numerous requests for assistance, talks and displays. The Branch contributed a static display organised by **Deanna Chin** and **Haidee Brown** on "IPM in Fruit Trees", "Mango Pests" with a live display of "Beneficial Arthropods" for the annual Fred's Pass Show.

All branch members tested out their teaching skills on a group of horticulture students from the NTU giving talks on entomological research and extension

Our esteemed leaders **Stuart Smith** and **Graham Young** were on LWOP during May-June. Stuart as a technical adviser for the National Fruit Fly Control Program on the island paradise of Mauritius and Graham as consultant on IPM in Fruit Trees and Vegetables in Hebei Province, China.

Stuart Smith returned to the Branch in early June and in collaboration with **Deanna Chin** and **Michael Neal** finally produced the ultimate glossy poster on "IPM in Mangoes" which was launched by the Minister in mid July.

In between his regular duties of certifying vegetables for export **Elliott Crowson** found time to attend another unit of the Rural Extension Course conducted through Gatton College in Queensland. **Lanni Zhang** continues to practise her Chinese on local vegetable growers with her work involving IPM in vegetable crops and her English on **Graham Young**. **Heather Wallace,** after nurturing her fruit fly colonies and then killing them off with disinfestation treatments still manages to attend field practicals and lectures for her Uni studies. **Deanna Chin** graduated from her science degree in May and is having a well earned break.

Glenn BELLIS
Regional Councillor

S.E. QUEENSLAND

CRC for Tropical Pest Management

Virtual plant and insect work of **Peter Room** and **Jim Hanan** is currently featured in the Silicon Surf page of the Silicon Graphics company at http://www.sci.com/Headlines/1997/June/virtualplants.html.

Jonathon Holloway, pesticide resistance expert who recently joined the ACRI from the UK via USA, visited on 7 July to discuss use of virtual cotton and pesticide deposition simulation in understanding the development of pesticide resistance in heliothis.

Peter Room just spent several days at ACRI Narrabri working with **Victor Sadras** and **Steve Milroy** mapping cotton plants tipped-out at different stages during last cotton season. The aim is to add compensatory growth routines to the virtual cotton model.

With **Bill Remphrey**, Univ. Manitoba, Peter is arranging a virtual plants symposium for the Int. Botanical Congress in St. Louis, August 1999. Speakers from Japan, Finland, France, Canada

and Germany have already agreed to participate.

Department of Natural Resources

Shipments of *Homichloda barkeri* (Coleoptera: Chrysomelidae), a biocontrol agent approved for release against prickly acacia weed, have been received in quarantine for mass-rearing at the TWRC, Charters Towers, where it is currently being reared. Several other potential biocontrol agents have also been received for host-testing on prickly acacia. The South-African field station is underway, with the second field entomologist to be appointed soon. The *Lantana* biocontrol project has done more acquiring since the last edition ! - more *Aerenicopsis* from Mexico and **Tanya McAndrew** from Brisbane. The "new" *Lantana* species reported earlier has been correctly identified as *Lippia alba*, a weed introduced to Australia in the 1850's probably from the South Pacific. In addition, collaborative work with PPRI in South Africa is being finalised and a shipment of Australian lantana specimens (minus the envious project leader) has been sent for assessment against potential biocontrol agents.

QIMR

Brian Kay visited WHO, Manila from 14-17 July, as a temporary adviser to participate in a biregional (Southeast Asia and Western Pacific) meeting on surveillance and control of dengue. Participants were particularly excited about his joint project in northern Vietnam where the eradication of *Aedes aegypti* was achieved using horizontal methodologies (biological control, community participation including recycling). Following the meeting, he went to Bangkok to set up field trials of a new disposable sticky lure for *Aedes aegypti*.

The Northeast Morton Mosquito Organisation (NEMMO) and the Local Authority Research Committee (LARC) have acknowledged the need to develop freshwater mosquito control programs following research performed at QIMR by **Tonya Watson** and **Peter Ryan**. Both researchers have identified several new vectors of Ross River and Barmah Forest viruses, many of which are freshwater breeders.

Michael Brown, Darryl McGinn and **Peter Ryan** addressed full council meetings at Maroochydore and Pine Rivers to highlight these results and to promote LARC's commitment to developing freshwater mosquito control programs. The meetings were very successful with both shires agreeing to come on board.

Lynda Muir has decided to leave research to become a full-time mum. She will be missed by everyone at QIMR.

USDA Biological Control Laboratory

The first biological control agent for *Melaleuca quinquenervia* was released in Florida in April. It's been a long wait as the weevil, *Oxyops vitiosa*, has been in quarantine for over four years. **Matthew Purcell, Kylie Galway** and **Jeff Makinson** are currently evaluating more agents which are desperately needed to control this Australian native weed. The group also assisted **Sylvan Kaufmann** from Rutgers University, New Jersey with her PhD studies comparing stands of *Melaleuca* in Australia and Florida. **Kerrie Davies** from the University of Adelaide Waite Campus visited the labs in July to look at *Fergusonina* galls on *Melaleuca quinquenervia*.

University of Queensland

Jennifer Marohasy has been appointed as the new Environmental Manager for "CANEGROWERS", who are based in Edward St, Brisbane. Jennifer will be developing and overseeing the implementation of an Environment Management Strategy based on the environment policy of the Queensland Cane Growers Council.

Bill Crowe, a Queensland Quarantine entomologist, currently working for AQIS, will be based within the Department as a joint venture between the Entomology Department and AQIS. Bill will be based at the university to keep abreast of professional developments within his field and to have access to professionals in Entomology.

Stefan Schmidt, a sawfly taxonomist and ecologist, arrived in early June. He's working on sawfly mating systems and host relationships. His PhD work was on a complex of nematine sawflies in the genus *Amauronematus*.

Paul Grostal and **Shaun Hood** have both submitted their PhD dissertations. Paul has left for a 6 month post-doc in Holland.

Dianna Liu has been awarded a UQ postdoctoral fellowship for 1998 and 1999.

He Xuexiang is a Chinese student who is beginning a postgraduate diploma in Agricultural Science. She will be conducting a project on fungal infection in heliothis at different formulations, under supervision of **Dave Merrit** and **Dave Holdom**.

Dave Walter and **Heather Proctor** recently taught many budding (and blooming) acarologists at the Annual Acarology Summer Program at the Ohio State University. **Simon Catesby**, a PhD student from this department, managed to attend and not get lost.

David Yeates spent a week in Tasmania recently searching for the very tiny, wingless scorpion fly, *Apteropanorpa*, which hunts on the surface of snow. The material was needed for molecular studies of the Mecoptera. Despite the lack of snow, David, together with **Peter McQuillan** from Tasmania, maintained his remarkable collecting record and found not one, not two, but 50 of the fantastic beasties sheltering on vegetation in high altitude regions. Some were even brought back to the laboratory alive and beautifully photographed. The *Apteropanorpa* of which Dave and Peter collected so many is a new species.

Queensland Museum Entomology Section

Chris Burwell married fellow entomologist **Claudina Rodriguez** in a garden wedding well attended by those from the Entomology fraternity. Claudina works at DPI in Redlands. Congratulations to them both.

A colony of bull-ants sacrificed their nest in the name of education and science. "Totally Wild" filmed the event which was only partially successful as like all sensible animals the ants had dug down to ride out the winter. The ants have now made their new home in the reference section of the museum. **Anne Dollin** visited briefly to look at *Trigona*. **Dick Drew** brought a group of overseas students through for a brief tour and outline of the functions of an insect collection.

Queensland Museum Arachnology Section

Graham Wishart is visiting from NSW to look at *Misgolas* and to tangle with Mapinfo. **Lisa Boutin** is visiting from New Zealand and joins **Kylie Williams** on **Robert Raven**'s ground-hunting spider project. Robert is off to Townsville's Museum of Tropical Queensland for a quick look at Whistling Spiders. With a recent surge in interest from the pet trade some basic questions of who lives where need to be sorted out before every one of shovel-wielding age begins harvesting wild populations expecting $10 a leg. **Val Davies** has been to the European Arachnology Congress in Britain.

Toni WITHERS
Regional Councillor

Bureau of Sugar Experiment Stations

Les Robertson, John Rogers and **Peter Allsopp** organised the Third Brisbane Workshop on Soil Invertebrates held at the University of Queensland in mid July. Participants came from as far afield as USA, UK, Colombia, South Africa, Solomon Islands, PNG and NZ, as well as a wide selection of Australian regions. The award for "The Cleanest Sampling Team" went to **Mike Villani**'s 15-person group on the 15th fairway of an upstate New York golf course. Sure beats sugarcane!

Dan Potter (University of Kentucky), **David Dent** (CABI) and **Hein du Toit** (ARC South Africa) sampled the "delights" of sugarcane fields the week before. **Les Robertson** showed them the north of Qld and **Peter Allsopp** and **Peter Samson** contrasted with the south.

David Logan is busily finishing writing his PhD from a new location. A move to Ayr has put him in the firing line from growers experiencing an outbreak of greyback cane grubs. All David wants is a quiet life!

Department of Primary Industries

Another week, another restructuring! On July 1st the DPI Institutes came into being in the latest model of the organisation. Most entomologists have been placed into either the Qld Horticulture Institute (ie those working on horticultural crops) or the Farming Systems Institute (ie those working on field crops). The wisdom of Solomon was used to place the taxonomists with **Marlene Elson-Harris** going to QHI and **John Donaldson** to the Farming Systems Institute. The new structure should mean little in the way of change for working entomologists, at least in the short term, as they will stay in the same place and carry on with the same work. Managers, however, will have to reapply for the latest versions of their old jobs. It is hoped that the Institute system will improve the lot of entomologists as there seems to be recognition that discipline interaction and networking should be encouraged and fostered, both in and between Institutes. What a radical idea!

Claudina Rodriguez left **Gordon Simpson**'s Toowoomba mirid research team in May. She is now working for **John Hargreaves** at Redlands Horticultural Research Station on a 3 year project looking at thrips on ornamentals.

Gordon Simpson attended the Third Brisbane Workshop on Soil Invertebrates in July. He co-authored a paper discussing the effects of tillage on soil invertebrates.

In May **Bob Corcoran** (Indooroopilly) spent two weeks in Malaysia as part of his current ACIAR project examining physiological characteristics of Malaysian papaya fruit flies for comparison with those of north Qld papaya fruit flies. He also spent a week in Vietnam on new ACIAR project work developing low cost quarantine heat treatments for tropical fruit.

David Astridge, who was appointed recently to work on banana IPM at South Johnstone, combined attendance at the National Banana Industry Congress at the Gold Coast with a meet-the-fellow-DPI-entomologists trip through southern and central Qld. David spent time at Indooroopilly, Gatton, Nambour, Bundaberg and Rockhampton. The tour was informative if a trifle difficult as David was travelling without money or cards after his room was burgled at the conference.

Dan Smith, Andrew Beattie and **Roger Broadley**'s new citrus IPM book is published and available for sale. It is reported to be a beauty.

Iain KAY
Regional Councillor

CSIRO Longpocket

Don Sands visited Fiji concluding ACIAR-supported work in the Pacific on fruit piercing moths. There is progress towards control by two parasitoids imported from Papua New Guinea, *Telenomus lucullus* (Scelionidae) and an *Ooencyrtus* sp. (*papilionis* group).

Wilco Liebregts, a contract scientist with CSIRO for the last 10 years, will stay in Fiji while searching for a suitable position, preferably in biological control. Wilco has made substantial contributions towards biological control of scale insects (*Pseudaulacaspis pentagona*) in Western Samoa, and the moths in Tonga and Fiji.

SOUTH AUSTRALIA

Department of Crop Protection
The University of Adelaide

Lynne Grbin has recently submitted her PhD thesis, having been working as a Research Officer in the CRC for Tropical Pest Management for the last ten months. Lynne undertook a project with **Mike Keller** and **Andy Austin** on "Sublethal effects of *Bacillus thuringiensis* on the diamondback moth, *Plutella xylostella*, and its natural enemy, *Cotesia plutellae*: implications for resistance management". **Ebrahim Soleyman**, supervised by **Mike Keller** and **Peter Bailey** (SARDI), has been awarded his PhD on "The ecology of *Melangyna viridiceps* and *Simosyrphus grandicornis* (Diptera: Syrphidae) and their impact on populations of the rose aphid, *Macrosiphum rosae*."

Graham Lewis has just commenced an Honours project with **Andy Austin** on the effects of various trap designs for monitoring invertebrate species richness. **Kaye Ferguson** has commenced a PhD with **Peter Bailey** (SARDI) and **Mike Keller** on "Development of an IPM program for quandong moth" (see also Entomology, SARDI). **John Jennings** is currently on 3 months study leave to complete his PhD. In late July he left for a two visit of ANIC, Australian Museum, Macleay Museum and the Taxonomy Unit, Orange Agricultural Institute to look at collections of hyptiogastrine wasps.

Rick Roush continues to keep busy with teaching, the CRC for Weed Management Systems (which he serves as leader of the Education Program), and research on managing resistance to transgenic crops. During April, Rick attended the Resistance '97 meeting at the Rothamsted Experiment Station (UK) to present a paper on managing resistance to Bt transgenic crops, visited the European headquarters of three companies working in this area, and dropped in on CSIRO's labs at Montpellier (a CRC participant) to discuss biological control of broom and St John's wort. While in Montpellier, Rick and **David Briese** (CSIRO Entomology) kindled plans to reintroduce the buprestid beetle *Agrilus hyperici*, a very promising agent for control of St John's wort. Due to a lot of back-breaking root digging work by David and his wife Penny, the beetle larvae are scheduled to arrive for quarantine in Adelaide in late July.

Among Rick's six postgraduate students, **Mahmood Ahmad** has been testing whether Bt resistance genes are as common in pest populations as suggested in two recent controversial papers from the US (preliminary answer: NO). **Gary Fitt, Colin Tann** and **Neil**

Forrester from Narrabri have been sending us *Helicoverpa armigera* for this project and we'd be delighted to get more from any readers! **Craig Clarke** has been making steady progress in sorting out climate matching in the bitou tip moth, *Comostolopsis germana*, an agent for control of boneseed, *Chrysanthemoides monilifera*, and the horehound plume moth, *Pterophorus spilodactylus*. In addition to his experiments, Craig has been working hard to clear a disease from the plume moths. **Gwen Mayo** has confirmed earlier work by **Paul Jupp, David Briese** and **Jim Cullen** that some populations of St John's wort are resistant to the mite *Aculus hyperici*. Gwen is now trying to develop molecular markers to identify these St John's wort populations. **Peter Taverner** continues to rewrite our understanding of the mode of action of insecticidal oils (Peter has shown clearly that it is NOT suffocation!).

In July, **Mike Keller** attended the 11th International Entomophagous Insect Workshop, Wisconsin, USA. Also in July, **Kerrie Davies** spent two weeks with **Matthew Purcell**'s group at the USDA Biocontrol Laboratory at CSIRO Entomology, Indooroopilly, who have been investigating the gall forming symbiotic fly/nematodes on *Melaleuca quinquenervia*. She gave a seminar, made several collecting trips and examined insect and nematode populations associated with the galls. **Gary Taylor** was recently awarded the Royal Society of South Australia's Publication Medal for 1997. His paper, co-authored with **Andy Austin** and **Kerrie Davies** describes the composition of a fly/nematode gall community on *Eucalyptus camaldulensis* from Goolwa, SA.

Entomology Unit, SARDI

The small brown snail *Microxeromagna vestita* has been cited by US quarantine officials as a contaminant of Australian export navels. **Dennis Hopkins** joined a "roadshow" from the Citrus Board of SA in early April which visited citrus properties and packing sheds in South Australia, Victoria and New South Wales to explain the biology of this and several other species of snails and outlined control options to prevent contamination of future export shipments.

Ken Henry, Dennis Hopkins and **Mike Keller** (Crop Protection, University of Adelaide) attended a workshop on the biological control of Paterson's curse and thistles held at Yanco in late April. This annual workshop was attended by researchers from all over southern Australia who are involved in a national program to distribute and establish biocontrol agents for these weeds.

Dennis Hopkins spent the first week of May in Canberra on an Evaluation Team which is reviewing the control operations and the research function of the Australian Plague Locust Commission.

Peter Bailey has started work with postgraduate student **Kaye Ferguson** on developing an IPM program for quandong plantations. The main pest is the quandong moth, *Paraepermenia santaliella* Gaedike (Epermeniidae), which is responsible for up to 80% crop loss in most years. Also working with Peter is **Sarah Whitely**, who is working on post-harvest disinfestation of table grapes.

Peter Taverner discussed postharvest oil disinfestation on citrus with **Greg Nelsen**, President of DNE Fruit Sales, during his visit to SARDI in May. Ampol's postharvest oil has recently been made available for commercial use. Peter has been involved in trials citrus packing sheds in the Riverland during the Navel export season to the USA.

Greg (Jacko) Baker's fully energised after a five week break of long service leave.

Department of Terrestrial Invertebrates
South Australian Museum

The entomological section of the Department has had a large increase in staff and volunteers who are listed below. **Eric Matthews**, Senior Curator, is working on higher categories in Tenebrionidae; **Chris Watts**, Senior Scientist, is working on the taxonomy of water beetles; **Jan Forrest** is the Senior Collections Manager, insects; **David Hirst** is Collection Manager, arachnids; **Lynette Queale** is part time Collections Manager in entomology working on Diptera and Orthoptera; **Gordon Gross** is Curator Emeritus working on the taxonomy of the Hemiptera; **Bob Fisher** is Honorary Research Associate, working on the taxonomy and biology of butterflies; **Archie McArthur** is Honorary Research Associate, working on the taxonomy of *Camponotus* (Formicidae); **Shelley Barker** is Honorary Research Associate working on the taxonomy of buprestid beetles; **Ron Simms** is a volunteer assisting **Archie McArthur** with his ant research.

Archie McArthur has been scurrying about to various parts of the country. First to Perth to

examine ant collections made by **Jonathan Majer.** Then down to the Southeast to collect ants. Lastly to Canberra to consult with **Steve Shattuck** of CSIRO. It was noticeably quieter in the Department during his absences!

Gordon Gross was pleased to see **Murray Fletcher** and **Jasbir Mann** who visited the Museum in early April and over two days sorted the bulk of the unidentified Cicadellidae taking some interesting goodies back to Orange to work on.

In April **Chris Watts**, **Jan Forrest** and **David Hirst** went on an expedition to Lake Hope in the Strzelecki Desert, as part of the Museum contingent, with the Waterhouse Club. The area they visited was impoverished due to drought and overgrazing and very few insects were collected although David was able to collect specimens of a rare spider.

CSIRO Entomology

Geoff Baker, Penny Carter and **Vicki Barrett** presented papers on the biological control of Mediterranean snails and earthworm effects on pasture production and nitrogen transfer to wheat plants at the Farming Systems Development Conference in Adelaide. Geoff also talked about recent earthworm research at an Australian Soil Science Society Symposium on Catchment Management in Hahndorf.

Penny, Vicki & Geoff spent a cold, winter week on a cliff top in north-western Tasmania along with an ABC "Landline" crew and three farmers from the Central Hopkins Land Protection Association in western Victoria collecting several thousand deep-burrowing earthworms, *Aporrectodea longa*. These worms have now been inoculated into various soil types beneath pastures near Mortlake in Victoria to evaluate their establishment, dispersal and impact on soil properties and plant production at field scale. The work is funded by the MRC PIRD scheme and links with concurrent LWRRDC funded research on developing mass-rearing and inoculation methods for *A. longa* on mainland Australia.

Penny & Geoff have continued their searches for native Australian snails to include in host specificity tests for exotic sarcophagid flies which are being considered as biocontrol agents against Mediterranean snail pests of pastures and cereal crops. The latest searches were made in the Flinders Ranges, S.A.

The aquatic golden apple snail, *Pomacea canaliculata*, which is a native of South America, is now a major pest of rice and to a lesser extent other crops (e.g. lotus, taro, azolla etc.) in most south-east Asian countries. The problem is worsening there and the snail has the potential to invade large areas of northern Australia. **Geoff Baker**, funded by ACIAR, gave a concluding overview on control options for this pest at a recent International Symposium on the Control of Golden Apple Snails in Thailand. Geoff then travelled on to the International Rice Research Institute in the Philippines for further discussions on how the pest might be tackled.

Australian Water Quality Centre, SA Water

Peter Schultz is busy with more reports on the effect of Wastewater Treatment Plants on the streams in the Adelaide area. Next on the list is the Bird-in-Hand plant which is essentially the source of Dawesley Creek up near Woodside. Sampling has also started on projects looking at the effect of WWTPs in Naracoorte and Millicent. **Chris Madden, Vladimir Tsymbal** and new recruit from Sydney, **Paul McEvoy** are patiently waiting for rain so that sampling can begin in earnest for the First National Assessment of River Health (FNARH). This is the name for the latest round of sampling for the Monitoring River Health Initiative. Two hundred new sites in South Australia are to be sampled, with the aim being to target streams that are impacted in some way by land use, pollution or some other influence that may affect the macroinvertebrate fauna of that system. The data will be used in models that predict the number of families that should be present at a site, based on the physical characteristics of the site. The predicted number will be compared with the number of taxa present in a sample and this will be used to describe the degree of impact. So far, there is not much water about and the anticipated finish time at the end of June has been put back to some time in July. At least in the meantime we can get on with the backlog of samples from the 1995 surveys!

Mike KELLER and Gary TAYLOR
Regional Councillors

VICTORIA

Department of Natural Resources and Environment

Keith Turnbull Research Institute

El Bruzzese has been involved in developing the final DNRE submission to the Parliamentary Environment and Natural Resources Committee enquiry into weeds. The committee is expected to present its report to the Victorian Parliament by the end of September. We are looking forward to having **John Weiss**, currently on secondment as Research Officer to the enquiry, back on the horehound project by early October.

Patrick Honan has conducted a series of European wasp trapping trials. Over 6,000 insects were trapped using 10 attractants. Fifteen captive *Vespula* nests were used. Commercial baits were most successful but not enough wasps were trapped to make the results significant. Patrick has also been studying Moreton Bay fig psyllids, *Mycopsylla fici*, for the City of Melbourne. Most Melbourne trees were planted in the 1920s. The psyllids cause leaf yellowing and early leaf fall. All figs within the City (560 trees) were sampled and all were infested.

Greg Lefoe will soon be importing the elm leaf beetle parasite, *Erryniopsis antennata* (Diptera: Tachinidae), into quarantine from California. Hibernating beetles are currently being collected and reared to obtain third instar larvae suitable for rearing the parasite. Approval for release of this agent has been granted and releases are scheduled for next summer.

Tom Morley reports that the Paterson's curse taproot fleabeetle, *Longitarsus echii*, has emerged from pot cultures "in sync" with the seasons. Enough have emerged to maintain the culture and provide material for release at a small number of sites around the State. This insect was first released in Victoria last year. **John Stoner** was employed until the end of July on this flea beetle work. *Longitarsus aeneus*, the roothair flea beetle, has not yet begun to emerge from cultures. Tom has taken on two students: **Christine Pesti**, is participating in the CSIRO Student Research Scheme, testing herbicide effects on Paterson's curse. Another SRS student, **Chris Beckman**, is testing the toxic effects of herbicides on various insect biological control agents of weeds (including bitou tip moth, black boneseed leaf beetle, Paterson's curse crown weevil, Paterson's curse leaf mining moth, ragwort crown boring moth and horehound plume moth).

Emma Scott received a new shipment of eggs of the horehound clearwing moth, *Chamaesphecia mysiniformis*, from France in June. The moth was first released in Australia in February this year. It has proved to be difficult to rear through the mandatory one generation in quarantine. This year the project hopes to successfully breed enough adults to set up a mass rearing culture at KTRI as well as release some more into the field. A polyhouse for the culture, funded by the CRC for Weed Management Systems, is nearing completion and now the horehound team have the unenviable task of digging up and potting 6000 plants from the field to fill this space.

Lalith Gunasekera and **Robin Adair** have conducted a series of workshops around Victoria on alligator weed. Lalith is now busy developing priorities for the control of the 610 recorded Victorian infestations. Robin is continuing work on integrated management of boneseed and bitou bush and has recently completed applications for approval of a host specificity test list for the *Chrysanthemoides* rust fungus, *Endophyllum osteospermi*, and for approval to import the *Chrysanthemoides* leaf buckle mite, *Aceria neseri*. Robin has also been preparing himself for travel to South Africa to complete the host specificity studies of the boneseed Tortrix moth. The bitou seed fly, *Mesoclanis polana*, first released in Australia at Iluka Bluff and Crowdy Bay National Park on the north coast of NSW in August last year, is now present in substantial numbers over several hectares and has dispersed in lower numbers for some kilometres; an encouraging result given the short time since the releases and the small number of flies released.

Raelene Kwong is collating results of a statewide assessment of ragwort biocontrol agents and completing a review of Biocontrol Services Victoria, the KTRI team involved in testing, mass rearing and release of biological control agents.

The St John's wort mite, *Aculus hyperici*, is to be released at new sites in Victoria during July and August. Areas that have not yet seen many releases will be targeted. **Franz Mahr** has conducted workshops to train DNRE field staff and members of Landcare groups in the selection of appropriate nursery sites and the methods to be used to harvest the mites and distribute them to new locations. Studies are underway to determine the impact of this agent.

Peter Hodge (NSW Agriculture/CSIRO) will be visiting New Zealand later this year to bring back to Australia the broom bud psyllid, *Arytainilla*

spartiophila, and the broom bruchid beetle, *Bruchidius villosus*, and possibly some new material of the broom twig miner moth, *Leucoptera spartifoliella*. **Nicole Freeman** is rearing the latter agent at KTRI. Field collections of the twig miner may be made from NSW sites for Victorian releases later this year if populations are large enough. It appears probable that CSIRO Entomology quarantine labs will handle the importation of either the psyllid or the bruchid and KTRI quarantine will handle the other agent.

Ian Faithfull has been monitoring release sites of the dock clearwing moth, an agent for *Rumex* spp. Most of the 24 sites inoculated last summer have good populations of larvae although the dry seasonal conditions may have been unusually advantageous. Larvae of this agent feed in the taproot and are thought to be at risk from flooding.

Institute for Horticultural Development

A meeting on "The future of methyl bromide in the flower and nursery industries" was held at IHD on 1st July. The meeting was organised by **Ian Porter** and was concerned with both commodity and soil disinfestation. **Jonathan Banks**, Stored Grains Research Laboratory (SGRL), CSIRO Division of Entomology, Canberra, gave an overview of likely alternative commodity treatments and a review of what other countries are doing regarding both commodity and soil treatments. Jonathan is co-chair of the International Methyl Bromide Technical Options Committee. **Peter Williams**, IHD and **Gaye Weller**, SGRL, informed the meeting of progress of the National Disinfestation Project on Wildflowers for Export. As a result of this work application is to be made to extend the registration of the cylinder gas phosphine formulation Phosfume® to include cut flowers.

Gordon Berg (IHD/Ornamentals) and **Greg LeFoe** (Keith Turnbull Research Institute) are busy organising an Elm Pests and Diseases Symposium to be held in Melbourne in October this year. The Symposium will provide information for the further development of the Contingency Plan for Dutch Elm Disease. Earlier this year there was a "scare" in the Fitzroy Gardens in Melbourne when two suspect trees were found with typical symptoms of the disease. These were subsequently removed and diagnostic tests proved negative.

David Williams and just about everyone else involved in fruit IPM spent a hectic few weeks surveying orchards for fireblight. They didn't find any fireblight but they sure ended up a lot fitter than they started. David is about to head off to Stanthorpe to meet with **Frank Page** and **Steven Tancred**, then the following week will be in Orange to meet with other pome fruit entomologists and plant pathologists to discuss codling moth, woolly aphids, weevils and powdery mildew.

On a sad note, David's mentor and friend **Dave Morris** passed away. **Dave Morris** was well known to most entomologists and will be sorely missed by the profession and by the fruit industry.

Granitgard P/L

Don Ewart, Granitgard P/L East Melbourne, has been checking out termites in the USA and Canada. Don presented a paper at the International Research Group on Wood Preservation's conference at Whistler BC and managed get the latest on termite control in California and Hawaii. Don is happy to report that Australia still leads the world in innovative termite control.

Granitgard P/L field tests at Gnangara north of Perth have been going very well despite a record freezing morning during recent sampling. Don is assisted in this work by the very sprightly **Dick Perry**, who, by the time you read this, will have celebrated his 95th birthday.

John French (Ecospan Consulting ex CSIRO Forestry & Forest Products) shows no sign of accepting retirement lightly and recently returned from a meeting of termite experts in France.

IPM Technologies Pty. Ltd.

Paul Horne and **Cindy Edward** have completed a very busy season of demonstrating IPM to potato growers. They finished this off with a series of talks to growers and others in the potato industry in Western Australia, organised by **Stewart Learmonth** in Manjimup. While there they visited **Francoise Berlandier** and **John Matthiessen** to discuss different aspects of the potato work. More recently, Paul gave a talk at the National Potato Crisping Workshop in Toowoomba where many of the growers taking part in the successful IPM demonstration were able to support the IPM strategy being promoted. Since June, an important step forward has been the use by growers in North Queensland of augmentative releases of parasitoid wasps.

Nancy ENDERSBY

and Robyn COY
Regional Councillors

WESTERN AUSTRALIA

Zoology Department, University of WA

Geoff Allen spent a few weeks over in SE Queensland and Northern NSW in May during which time he gave a seminar at Griffith University, discussed tachinid biology, host location and biocontol with **Don Sands** (CSIRO, Indooroopilly) and among others caught up with **Tony Clarke** and **David Yeates** (Entomology, Uni of Qld).

Ian Dadour and **David Cook**, of Agriculture WA, travelled to **Mike Parella** and **Diane Ullman**'s lab in Sacramento, USA, to discuss thrips research. They collected thrips from the Napa Valley with **Laurence Mound** who was also visiting. Ian then travelled to the UK where he visited The Natural History Museum to discuss forensic entomology and thrips, Rothamsted to discuss insecticide resistance with **Ian Denholm** and the University of Bristol to discuss livestock entomology with **Richard Wall**.

Entomology Section
Agriculture Western Australia, Broome

Tony Postle attended a mite ID course at Ohio State University in Columbus, USA. The intensive course ran for 12-14 hrs/day (but only 8-9 on Sunday!) and continued for three weeks. The first week was spent learning the basics of acarine systematics while the second and third weeks were devoted to identifying and learning to key out the numerous mite taxa of current or potential agricultural significance. Tony is now the most knowledgeable mite taxonomist west of the Nullabor! He reported that the course was tiring, but well-run and worth attending.

Entomology Section
Agriculture Western Australia: South Perth

Hein du Toit from the ARC-Grain Crops Institute in the Republic of South Africa visited **Rob Emery, Stewart Learmonth** and **Andras Szito** in late July to discuss research on African black beetles and other cockchafers. They discussed light trapping, life tables and methods of studying age and fecundity in beetles. On August 4th Rob attended the meeting of the working party for the Australian Wheat Board's working party on grain protection workshop and the annual meeting of the GRDC Grain storage chemicals strategies project participants in Brisbane. There he presented results of grain insect resistance surveys and the newly developed Australian Grain Insect Resistance Database. This database allows researchers to input data and run dynamic queries over the internet.

Meanwhile, the Entomology section of Agriculture WA, in particular **Natarsha Zilm** and **Rob Emery**, have been busy with the Insect Reference Collection database. To date over 45,000 specimens have been entered. They are currently working on the Buprestids. Each specimen is accompanied by complete collection and taxonomic details following the ANIC data dictionary as well as a scanned image of each species. This database is accessible for dynamic searching on Agriculture Western Australia's web page at http://entoweb.agric.wa.gov.au:7000/ento.

The entomology section is also preparing a proposal to examine the prospect of having volunteers to scan the insects and input label data.

Peter Davis reports that West Indian Drywood Termites have recently been discovered in Perth. A table imported from South Africa four years ago was found to contain live *Cryptotermes brevis*, West Indian drywood termites. The damage was found by a pest control operator investigating carpet beetle activity at the base of the table. Normally he would not have known what drywood termites, or their damage, looked like, but fortuitously had recently attended a training course on termites where he had seen a picture. *C. brevis* is considered one of the worst timber pests in the world. It is found in the West Indies, central America, Argentina, Brazil, Chile, southern USA, Hawaii, China, parts of Africa including eastern South Africa and is established in Queensland.

Until this incident, *C. brevis* was not considered to pose a great threat to the majority of the Western Australian populace as it was considered a tropical/sub-tropical pest. However, all stages of termite, except alates, were found in the table indicating that the drywood termites found the conditions in Perth acceptable. As several experts have pointed out, it is the micro-climatic conditions within buildings that are important and climate-matching programs such as 'CLIMEX' may not accurately predict the distribution of this pest. Also of concern is the occurrence of *C. brevis* in Chile (on the western side of a southern continent) at a similar latitude and climate to Perth.

Drywood termites obtain all their moisture requirements from the wood they are eating and do not need contact with the ground or source of moisture. Colonies of *C. brevis* are small (up to 300 individuals) and new colonies can be formed either by budding-off or flights of alates. A small piece of wood, such as a chisel handle, can contain a functional colony. It is interesting to note that fumigation of furniture entering Australia is not mandatory. Furniture, imported as personal effects, is only inspected. In an attempt to improve the chances of detection, we passed some infested pieces of timber through the Western Australian Quarantine Inspection Services (WAQIS) 'RAPI-SCAN' X-ray equipment. Cavities did show up as lighter patches and this method of detection deserves further investigation. The infested table, and other furniture imported along with it, has been fumigated. The house and neighbouring properties have also been inspected and no other signs of activity have been detected.

Regrettably the former head of entomology and chief of biological services division of the then WA Department of Agriculture (now AgWA) **Clee Jenkins** passed away in mid-July after a short illness. More details in the form of an obituary will appear in the next edition of *Myrmecia*.

Françoise BERLANDIER
Regional Councillor

NEWS FROM AFFILIATED SOCIETIES

Entomological Society of Queensland

Tony Clarke, who recently returned from Tasmania to the University of Queensland, addressed the Society in May. His topic was "Eucalypt Entomology in Temperate Australia". He discussed temperate hardwood plantations, the major pests and his own work on *Chrysophtharta bimaculata* (Coleoptera: Chrysomelidae).

This year the Entomological Society's Student Award was won by **Christine Lambkin** of the Entomology Department, University of Queensland, for her Honours thesis. Christine was presented with her prize by the President, Dr **David Yeates**, at the June Notes and exhibits meeting. She then gave a talk about her project entitled "Characters, congruence and bee flies". Other speakers were **Philip Labrie** on his visit to butterfly farms in Costa Rica, **Chris Burwell** on wild life in the Cairns region and **Brian Weiss** who discussed a new gland, the Inca Cell, and its role in ecdysis in *Helicoverpa armigera*. Electroplated insects created by **Peter Misic** were displayed. A group of Society members went to the cinema in June, and enjoyed "Microcosmos".

Judy KING
Representative Councillor

OVERSEAS NEWS

NEW GUINEA

Coconut Entomology

The mid-term research review of the PNG Cocoa and Coconut Research Institute was held from 22-23 May 1997 at the Extension Liaison Section Training Centre, Tavito. The Entomology Section presented a review of its current trials. The meeting was represented with illustrated keys to distinguish the larval stages of Dynastinae commonly found in PNG. The key would shortly be published. Progress in determining the breeding sites of *Scapanes* larvae was also reported. Some progress has been made in finding a pheromone in the *Scapanes* adults.

Studies on the use of *Oryctes* pheromone to disseminate *Oryctes* virus by trapping adult *Oryctes* was discussed in detail. Work on the black palm weevil, *Rhynophorus bilineatus* currently includes the incorporation of the entomopathogenic fungi *Beauveria bassiana* and *Metarhizium anisopilae* into a central core of nine specially designed pheromone bucket traps.

The proposed Biological Control Workshop at Lae has been cancelled.

Plant Genetic Resources of PNG

In the latest issue, Vol 18(1-2), 1996, of the journal *Harvest*, a detailed paper (p. 26-70) on the Plant Genetic Resources of PNG by **Rosa Kambuou** of DAL has been published. It would be of interest to a wide variety of readers.

Research Students in Entomology at UPNG

The following students have registered in 1997 with **Ray Kumar**:

Raymond PARU (M.Sc. student), "Ecology of *Anopheles punctulatus* groups in Papua New Guinea"

Esthel GOMBO (Postgraduate diploma student),

"Effect of *Bacillus thuringiensis* on banana skipper, *Erionota thrax* (L.)"

Ray KUMAR
PNG Correspondent

FASTS NEWS

(Federation of Australian Scientific and Technological Societies)
FASTS Circular for June

1. The Stocker Review

Minister McGauran has not yet set a time frame for responding to John Stocker's Review of the way S&T is organised in Australia, but certainly "Priority Matters" has given him (and Cabinet) plenty of food for thought.

Stocker picked up a number of FASTS' issues, such as the lack of vision within Australia for science and technology, and the need to offer industry greater incentives to undertake R&D. I gave the Review and its 30 recommendations eight out of ten, given the time-frame and the constraints of its terms of reference.

The Review also provided a welcome re-affirmation of the CRC Program, at a time when Government seems to be walking away from election commitments to maintain funding.

There are sensible recommendations (the substance of which may need some refinement) on how scientific advice should feed into the Government decision-making process, and on restructuring PMSEC and ASTEC. This would clear up a lot of the confusion which has clouded these two bodies, and how an inter-Departmental coordinating committee (the CCST) should link with them.

Stocker recommends a chief science adviser should be appointed in all Portfolios with significant S&T responsibilities, and this too seems a sensible coordinating device. Currently only the Department of the Environment has such a position.

How will the Government react? FASTS has urged it to adopt some of the low-cost, non-controversial ideas immediately. These would include new arrangements for a streamlined PMSEC and ASTEC, and the CCST coordination.

We would like other measures adopted too, but some of these cost money and Government has shown little enthusiasm for others. For instance, Stocker joins the chorus of criticism levelled at Government by industry and science groups about its lack of vision. FASTS would welcome any steps towards articulating a preferred vision for what Australia will develop to in the 21st century. Then S&T can analyse how to support that vision.

The Review urges the Government to review its overall assistance to industry for innovation, and this must involve decisions made in accord with an agreed vision of Australia's sustainable development. The Stocker Review is available on the web at dist.gov.au/science/cs/index.html or in hard copy by phoning DIST on (06) 213 6483

2. FASTS' Board meeting in June

The Board raised a number of concerns, all in the context of a sharp downward trend in the Government forward budget estimates for S&T (for instance, in health research current spending of $174 million is projected to be cut to $131 million in 2000-2001). But as Minister McGauran has said, forward estimates are just that - estimates. They can be changed upwards or downwards depending on circumstances. The onus is on the S&T community to demonstrate repeatedly its value to Government.

Specific Board issues included a DEETYA report indicating a 3.5% decrease in undergraduate science enrolments. This decrease has been compounded because a number of universities lowered their TER entry scores.

Concern was also expressed over the lack of action on school issues, with the suggestion that the emphasis was on testing rather than maintaining standards. And the Board decided that FASTS needed to build better links with industry.

3. New Vice-President

Dr **Geoff Hudson**, President of the Australian Geoscience Council, has been elected Vice-President. He takes over from **Richard Arculus**, whose commitments overseas have made it difficult to contribute the way he would have liked. Geoff's appointment is until the AGM in November.

4. Popular science

A recent AGB McNair survey showed that twice as many Australians want to read about science rather than sport or politics, and that science beats crime and unemployment as a popular media topic.

In the FASTS media release on the survey, I said: "The batting performance of Mark Taylor and

the political agenda of Pauline Hanson have come under the most intense media scrutiny. But where is the equivalent scrutiny of S&T?"

I have written to the editors of Australia's top media outlets urging them to give greater coverage to science, and have already made an appointment to discuss the matter with one editor. I will also be writing to Presidents of all Member Societies on this, urging them to be proactive.

5. Meeting with Democrat Senator **Stott Despoja**

FASTS' secretary **Chris Easton, Toss Gascoigne** and I met Senator **Natasha Stott Despoja**, Democrat spokesperson on S&T matters, and her science adviser Dr **Charles Lawson**. We had a good discussion on a number of matters: the taxation of post-graduate scholarships, the West Review of Higher Education, women in science, and differential HECS fees.

This maintains FASTS non-partisan approach to political groups. We have established useful links with the three major groups in Parliament - Government, the Labor Opposition, and the Democrats - and can discuss S&T policy with all of them.

6. Council on November 20

Peter McGauran, Martyn Evans and **Natasha Stott Despoja** have all accepted invitations to address FASTS Council in November. The dinner that night will be at the National Press Club, and will be addressed by a leading figure from S&T.

All Member Societies are invited to send representatives, and to contribute to the makeup of FASTS "Top Ten Policies" for 1998. Formal information about the meeting will be sent out to Member Societies shortly.

Please canvass your members for the appropriate "Top Policies" from your Society's perspective.

7. How FASTS can help

FASTS works constantly with Ministers and the Opposition parties, and the science media. Member Societies might like to make use of this expertise.

Executive Director **Toss Gascoigne** can help Members make contacts in Canberra, and has worked with Member Societies on media releases, policy launches and correspondence with Ministers. His contact details are: phone (06) 257 2891, fax (06) 257 2897, email fasts@anu.edu.au

8. New web site address

Graham Johnston, former president of FASTS, ASCEPT and the RACI, does an excellent job in keeping the FASTS' site right up to date. It has all the basic information about FASTS, and provides links to our Member Societies.

Now we have a new address for the FASTS web site:

http://www.usyd.edu.au/su/fasts

9. Media

I have noticed articles in several Society newsletters which, if presented in simple terms, would be of interest to the general media. One example is a statistical survey of the way people choose Tattslotto numbers, which appeared in the Statistical Society newsletter.

We need to get greater coverage of S&T in the media, and we know people are interested in reading about it. Member Societies might consider putting out a media release highlighting an interesting article in their newsletters and journals. **Toss Gascoigne** can help with this.

FASTS circular for July

1. Mortimer Review

The future of the Cooperative Research Centres is looking less rosy. The financial screws have been turned a little tighter, with a three per cent efficiency dividend being applied from 1997-98, and a reduction of funding foreshadowed in the Budget's Forward Estimates.

Now the Mortimer Review has emerged. The CRC Program, which has been internationally admired as a model for bringing research and industry together, comes in for harsh judgement. Mortimer recommends a cut in the overall budget for the CRC program from $146 million in the 1997-98 budget, to a maximum of $20 million. This funding would be restricted to the "Public Good" CRCs, with all other CRCs being regarded as delivering a "private benefit".

His Review has been greeted by general applause of the business community, and FASTS joins them in supporting recommendations which set the right climate for growth. Clear systems to encourage a whole-of-Government program to support industrial development and investment are admirable objectives.

But his recommendations on basic research and ecologically sustainable development are not backed by argument or analysis to justify the recommendations.

He goes on to set unjustified target earnings from external sources for researchers like CSIRO (50 per cent), and the Australian Institute of Marine Science (AIMS) and the Australian Nuclear Science and Technology Organisation (ANSTO) (both 37 per cent), and the universities (50 per cent increase by 2005). The net effect would be to diminish the fundamental and strategic research efforts of our national research institutions, in the quest to lift external earnings. In ten years the intellectual capital of bodies like CSIRO could well be exhausted.

The recommendation to wind up the Rural Industries R&D Corporation (RIRDC) and the Land and Water Corporations (including LWRRDC), and those on the sustainable management of natural resources are similarly flawed.

In the recommendations on R&D, the Review's thinking leaves no room for direct Government funding for capacity building. There is little long-term vision in such an approach, and FASTS cannot stand by and watch any wholesale dismantling of the public research effort.

The Mortimer Review is available on the web at www.dist.gov.au/events/Mortimer/index.html or in hard copy from Government bookshops.

I have specifically sought involvement of Presidents of Member Societies in preparing a response to the Mortimer Review.

2. The Stocker Report

FASTS is urging the Government to adopt some of the less contentious aspects of the Stocker Review immediately. A considered response to the Review is in the final stages of preparation, and a meeting has been arranged with Minister Peter McGauran on 26 August.

3. New Member

I am delighted to announce that FASTS has a second Affiliate Member, the Scientific Suppliers Association of Australia. The SSAA represents companies supplying research and industry with instruments and materials, and its 100 plus members have a gross turnover approaching $1 billion annually.

FASTS welcomes the opportunity to strengthen our connections with industry. This will increase our capacity to advise Government on S&T issues across the board.

4. State S&T Policies

State Governments are becoming more aware of the role S&T can play in wealth creation and solving environmental problems. Victoria has joined WA in announcing an S&T policy, and other states are showing similar interest.

The States are showing the Commonwealth Government the way. Despite criticism from industry, business and S&T groups, the Commonwealth has been resistant to the idea of establishing a national vision, and setting out a clear role for S&T in helping realise this vision. Perhaps the combined weight of advice from the community and commissioned reports from Mortimer, Stocker, and the impending Goldsworthy Review of IT will persuade the Government to act more decisively in this area.

5. Science Careers Proceedings

The Proceedings of the Forum on Science Careers have now been launched by Minister **Peter McGauran** in Canberra and Melbourne. President-elect **Peter Cullen** represented FASTS in Canberra, and Board Member **Jan Thomas** in Melbourne.

The Minister addressed groups of young scientists in both centres, and said that he was "open to any suggestions" which might solve the problems young scientists find when they seek careers in research. For those with suggestions on careers, the Minister's fax number is 06-273 4150.

6. PMSEC December 10

The Prime Minister is likely to address the issue of marine science at the next meeting of his Science and Engineering Council, tentatively scheduled for 10 December from 9 am to 2 pm. The Prime Minister has shown a strong commitment to PMSEC. While it provides a valuable occasion for Cabinet Ministers to meet with leading figures from S&T, the reforms suggested in the Stocker Report add value to a day which is important to the science community.

7. Assisting Member Societies

FASTS can help Members lift their public profile. **Toss Gascoigne** worked with the Australian Marine Sciences Association to help them launch "Towards a National Marine Science Policy". This

involved helping arrange meetings with Ministers, preparation of a media release, organisation of media events, and liaison with the Australian Geosciences Council.

8. New Policy Document

FASTS Council on November 20 will concentrate on revising the Policy Document and drawing up the list of Ten Top Priority issues for 1998. These will be particularly important in terms of the political cycle, with a pre-election Budget due in mid-May 1998. Agenda papers for Council are about to be mailed out, and Members should consider their input into these policy matters.

Joe BAKER
President
FASTS

ELECTRONIC NEWS

XXI International Congress of Entomology homepage:
http://www.embrapa.br/ice.

Directory of Entomologists with Pacific Interests on WWW

This directory is now available on Internet for browsing or downloading. It has been compiled by the Entomology Subcommittee of the Pacific Science Association in cooperation with the Bishop Museum, and includes names, addresses, and interests for all entomologists with Pacific interests who have responded to various questionnaires over the years. The present list derives from that published by **E.H. Bryan** in 1966, was updated by **Geoff Scudder** in the 1980s, and has been further updated by **Gordon Nishida, Neal Evenhuis** and **Scott Miller** for the 1990s. We know it is incomplete and welcome additions and corrections. The directory will be continually updated as information is gathered.

http://www.bishop.hawaii.org/bishop/psa/pacentodir.html

New FASTS web site

Graham Johnston, former president of FASTS, does an excellent job in keeping the FASTS' site right up to date. It has all the basic information about FASTS, and provides links to our Member Societies.

Now we have a new address for the FASTS web site:

http://www.usyd.edu.au/su/fasts

TRITON Prototype

TRITON, the Taxonomy Resource & Index To Organism Names, is a system under development by BIOSIS/Zoological Record as a mechanism for making data related to names of both fossil and recent organisms, and in particular animal nomenclatural data from the Zoological Record (ZR), available on the www. TRITON accesses a database of over a million animal names, at all taxonomic ranks, reported from the scientific literature of the last 18 years, plus some 400,000 names of other non-animal organisms provided by collaborating organisations.

The TRITON name index, the Index to Organism Names is offered as an aid to the general bioscience community and gives basic nomenclatural and hierarchy information, plus ZR volume occurrence counts (reflecting use in the literature) for animal names; and links to other organisations' data for non-animal names. It can be used to identify the taxonomic group to which an organism belongs and to link to further information from ZR or other collaborating organisation. Authors of newly published animal names may use it to readily check whether their names have been correctly reported in the Zoological Record, as recommended by the International Code of Zoological Nomenclature. Search notes are available.

In addition to the above, the Full TRITON Taxonomy Resource & Index To Organism Names system will provide subscription based access to full index and bibliographic data for all newly published and changed animal names, including all new combinations and new synonyms, reported in the Zoological Record since 1978; this currently includes 305,000 newly described taxa and records of 1,060,000 new nomenclatural acts; the database will be updated as sectors of the current ZR volume in production are completed, and around 19,000 names of newly described animal taxa are added each year.

Users should be aware that the TRITON system will not deliver a list of valid organism names (see Species 2000 for an international project with this intention); for animal groups TRITON offers a view of how names have been utilised in the scientific literature and what changes in their application have been formally proposed; for other organism groups it provides links and/or direct access to

other servers where nomenclatural data can be found.

Contact: jhowcroft@york.biosis.org

LucID Player 1.0 Released

LucID is a software based interactive identification system for using and building identification keys.

LucID has been developed by the Cooperative Research Centre for Tropical Pest Management (CTPM) and the Department of Entomology at the University of Queensland.

We believe that LucID represents a major innovation in the delivery of taxonomic information.

The LucID Player that has just been released on CD. It includes a demonstration version of the LucID Builder (soon to be released), a Delta-LucID converter, a key to the orders of Insects and samples of a number of other keys currently under construction.

Further information and a downloadable demo are available from our website at:
http://www.ctpm.uq.edu.au/Software/Lucid.html

David K. YEATES
The University of Queensland

COMING EVENTS

Joint Conference of the Society of Australian Systematic Biologists and the Australian Systematic Botany Society

The University of Adelaide
29th September to 3rd October 1997.

The conference will comprise of four special symposia : computing in systematics, east-west biogeography, the interface between systematics and ecology, and molecular systematics.

For details, join the Society of Australian Systematic Biologists by emailing Mike Crisp at ANU (Mike.Crisp@anu.edu.au).

Beneficial Organisms in pest management systems

An international short course offered by
The Cooperative Research Centre
for Tropical Pest Management
17-28 November 1997
Brisbane, Australia

Details: *Myrmecia* **33**(2): 24

Contact:
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Telephone: (07) 3365 1874
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Email: L.Grbin@ctpm.uq.edu.au

INSECTS AND HUMAN HEALTH IN AUSTRALIA

A briefing on the present position and future trends for the pest management and health care industries

Monday 29th September 1997
8.30am to 5.30pm
The University of New South Wales
Kensington Campus

Coordinated and sponsored by The Centre for Entomological Research and Insecticide Technology (CERIT) UNSW in conjunction with Unisearch Limited

For full details, registration form and program, please contact:

Patrick O'Rourke or **Chris Orton**
CERIT Biological Science
The University of New South Wales
SYDNEY NSW 2052
Phone: (02) 9385 0344
Fax: (02) 9385 0346
Email: CERIT@unsw.edu.au

UNISEARCH

CERIT
Centre for Entomological Rese
and Insecticide Technolo

AUSTRALIAN ENTOMOLOGICAL SOCIETY
28TH ANNUAL GENERAL MEETING AND SCIENTIFIC CONFERENCE
The University of Melbourne, Victoria, Australia
28 September - 3 October 1997

"ENTOMOLOGY - LOOKING AHEAD"

PROPOSED PROGRAM

Sunday 28 September 1997
Registration
Welcoming Function

Monday 29 September 1997
0730-0830 Registration
0830-0840 Opening
0840-0930 Presidential address: Professor Roger Kitching (Griffith University) "MILLENNIAL ENTOMOLOGY"
0930-1000 Phil Carne Prize Student talk
1030-1150 KEYNOTE SPEAKERS : Future research, education and employment in entomology in Australia
1. Dr Joanne Daly (CSIRO Entomology) "CAREER OPPORTUNITIES FOR ENTOMOLOGISTS - FROM A CSIRO PERSPECTIVE"
2. Dr Greg Buchanan (Agriculture Victoria) "FUTURE DIRECTIONS IN EMPLOYMENT AND FUNDING FOR ENTOMOLOGY IN AGRICULTURE"
3. To be announced "EDUCATING ENTOMOLOGISTS"

1300-1630 FORUM - EXOTIC INCURSIONS
1630-1730 AES Council meeting
1730-1830 Wine & Cheese tasting

Tuesday 30 September 1997

	SESSION A	**SESSION B**
0850-1210	INTEGRATED PEST MANAGEMENT (I)	AQUATIC INVERTEBRATES FOREST ENTOMOLOGY
1300-1500	POSTER SESSION/Insect Illustration & Photographic Competition display	
1500-1630	STUDENT WORKSHOP/LUCID DEMONSTRATION/Other workshops to be announced	
1630	AGM	

Wednesday 1 October 1997

	SESSION A	**SESSION B**
0850-1210	ECOLOGICAL GENETICS	BEHAVIOUR

1320-1630 IPM (II) & BIOLOGICAL CONTROL
1930 Annual Dinner (Dining Hall of Ormond College, University of Melbourne)

Thursday 2 October 1997

	SESSION A	**SESSION B**
	POPULATION & COMMUNITY ECOLOGY	ENTOMOLOGY IN PRIVATE INDUSTRY BIOLOGY/PHYSIOLOGY
1430	Closing remarks	

Friday 3 October 1997

POST CONFERENCE TOUR
0900 - 1700 See the picturesque Yarra Valley with gentle rolling hills, lush valleys and distant mountains.....and occasional wineries!

WORKSHOPS
We would like to hear from people who are interested in holding Workshops on the afternoon of Tuesday 30th September (3:00 pm - 4:30 pm). Please let us know so that we can book rooms and advertise the Workshops.

FURTHER ENQUIRIES:
Nancy Endersby
c/- Institute for Horticultural Development
Private Bag 15
South Eastern Mail Centre VIC 3176
Telephone: (03) 9210 9222
Facsimile: (03) 9800 3521
Email: endersbyn@knoxy.agvic.gov.au

Conference Information including Abstract titles can be found on our home page:
http://luff.latrobe.edu.au/~genarw/index.htm

First Call for Papers

Sixth Australasian Applied Entomology Research Conference
'Pest management - future challenges'
29 September - 2 October 1998
The University of Queensland
Brisbane, AUSTRALIA
in conjunction with
Australian Entomological Society 1998 Conference and 29th AGM
26 - 29 September 1998

The AAERC is the largest applied entomology research Conference in Australasia and is held every 5-6 years. The next Conference will be in Brisbane from 29 September to 2 October 1998. It comes at an opportune time as the turn of the century brings new opportunities, in the form of tools such as biotechnology and information technology for application in pest management, but retains existing challenges including the perceived failure to deliver pest management solutions, difficulties with resistance and migratory pests, pressure on insecticide use from environmental and consumer groups, funding cutbacks to basic research and education, and presents some new challenges such as global trade agreements and climate change.

The Science Program Committee of the VI AAERC has organised a range of symposia and key note speakers that will address the major issues in management of insect pests, stimulate discussion, and set the tone for research and development in applied entomology into the future. Below is a list of the planned symposia, the invited keynote speakers, and key topics to be covered within each area.

Now is your opportunity to contribute to and be part of the Conference. We are seeking expressions of interest to give a paper or present a poster. Obviously papers addressing symposia topics will be considered, but we also invite significant papers addressing other key issues in applied entomology. Papers analysing general

issues or case studies in pest management will have high priority. Accepted papers will be published in book form as a Conference proceedings and will be available at the Conference. Posters will be published as abstracts in the Conference proceedings.

We want to minimise the number of concurrent sessions, so the organising committee will be limiting the number of papers accepted for publication and presentation at the Conference. We reserve the right to ask authors to present proposed papers as posters .

If you wish to present a paper or poster at the VI AAERC, please provide a title, author(s) (presenter underlined), contact address, and a short 250 word abstract to the convenor of the Science Program Committee, Myron Zalucki, by 1 November 1997. The abstract should be sent to Myron at CTPM preferably via email to aaercabs@ctpm.uq.edu.au, or by fax (07 3365 1855), or as disk or hard copy by snail mail (address below).

Authors will be notified of acceptance, or otherwise, by 19 December 1997. Guidelines and procedures will be sent to authors on acceptance. Deadlines for drafts and revisions will be adhered to; failure to meet deadlines will result in rejection of the paper. Authors will be required to register for the Conference before their papers are published.

Feel free to contact any member of the organising committee listed below for further information on the symposia. For further information on the Conference, see the CTPM web page (http://www.ctpm.uq.edu.au) or contact:

Sally Brown
ICTE Conferences
The University of Queensland
Brisbane QLD 4072 AUSTRALIA
ph:(+61 7) 3365 6360
fax(+61 7) 3365 7099
email: sally.brown@mailbox.uq.edu.au

Symposia and invited keynote addresses

Conference Keynote Address:
"Applied Entomology: prospects, pitfalls, and challenges for the next millennium" by George Rothschild, Director, International Rice Research Institute, Philippines.

Symposium 1: IPM - has it delivered? (Organisers: Geoff Norton and Rick Roush)
"What does it take to make an effective IPM program: lessons from California and Victoria" by Frank Zalom (University of California, Davis) and Peter Merriman (Ag Victoria):
Other areas to be covered by invited and contributed papers:

* IPM in theory and practice in Australasian agriculture and horticulture
* The role of the consumer and market forces in IPM implementation
* IPM: lessons from developing countries

Symposium 2: Managing the new transgenics - just another pesticide or a revolution for IPM (Organiser: Gary Fitt)
"Transgenic crops for the Pacific rim - prospects and problems". (tentative title) by Prof Bruce Tabashnik (University of Arizona)
Other areas to be covered by invited and contributed papers:

* The Australian cotton experience - first cab off the rank
* Resistance management for transgenics - theory and practice
* Integration and deployment of transgenic crops in multicropping systems
* Genetically engineered viruses and beyond Bt genes in plants - possibilities, progress and pitfalls
* Combining biotechnology and IPM

S3: Alternative technologies other than transgenics - gazing at the long sunrise (Organiser: Peter Gregg)
"Commercialising semiochemicals - putting theory into practice in the market place" by Phillip Kirsch (IPM technologies, USA)
Other areas to be covered by invited and contributed papers:

* Manipulating natural enemies (predators, parasites, parasitoids and pathogens) in theory and practice
* Behavioural control through semiochemicals - confusion and mass trapping
* Genetic control: has it a place in IPM
* Classical host plant resistance - a natural part of IPM?

Symposium 4: Morphological and molecular systematics: complementary approaches for pest management (Organisers: Andy Austin and David Yeates)
"The costs and benefits of systematics in biological

control" by Michael Schauff (United States Department of Agriculture) and John LaSalle (International Institute of Entomology, UK)

Other areas to be covered by invited and contributed papers:

* Examples of integrating molecular techniques into systematics for pest management
* Morphological systematics in the service of biocontrol - theory and practice
* Interpreting genetic data - invasions and identification of sources

Symposium 5: Is classical biological control safe - or much ado about nothing? (Organisers: Rachel McFadyen and Steve Wratten)

"Assessing and improving the safety of introductions for biological control" by Keith R. Hopper (United States Department of Agriculture)

Other areas to be covered by invited and contributed papers:

* Improving the theory and practice of host specificity testing
* Prediction in biological control
* Threats to native communities - reality or myth
* Risk management in biological control

Symposium 6: Pest management in a global free trade village: prospects and pitfalls (Organisers: Bob Sutherst and Bill Roberts)

"Global trade implications of the World Trade Organisation and the Australian approach to pest risk analysis" by Bob Ikin (Australian Quarantine and Inspection Service):

Other areas to be covered by invited and contributed papers:

* Identifying and managing pest risks and impacts
* Examples and experiences in quarantine
* Managing invasions - from detection to eradication

Symposium 7: Predicting and managing key outbreak species - putting the cart before the horse? (Organisers: Graeme Hamilton and John.Matthiessen)

Keynote speaker: to be announced

Other areas to be covered by invited and contributed papers:

* Forecasting pest pressure
* Use of forecasts in IPM
* Area wide management and migratory pests
* Taking a long term perspective - lessons from forest systems

Symposium 8: Pesticides: will they have a role in the new millennium (Organiser: Neil Forrester)

"New insecticides and acaricides: their mode of action and potential role in IPM programs" by Tom Sparks (Dow Elanco, USA), and

"Insecticide resistance management: achievements, limitations and future prospects." by Ian Denholm (Rothamsted, UK)

Other areas to be covered by invited and contributed papers:

* Integrating the new chemistry and IPM
* Environment and consumer issues

Symposium 9: Conservation and pest management: irresolvable clash or complementary fields of research (Organiser: Rosemary Gillespie)

Keynote speaker: to be announced

Other areas to be covered by invited and contributed papers:

* Theory and practice of landscape management in agriculture
* Biodiversity and sustainable agriculture
* Conservation of species and agriculture

Symposium 10: Education for pest management in the IT (information technology) age - CAL, WWW and other acronyms (Organisers Myron Zalucki and Gordon Gordh)

"Pest management education in the future - taking IT to the streets" by Gordon Gordh (University of Queensland)

Other areas to be covered by invited and contributed papers:

* Computers in agriculture - strengths, weaknesses, opportunities and threats
* Selling and accessing information
* Decision support software

Science Program Committee

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Convenor: Assoc. Prof. M.P. Zalucki
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email: M.Zalucki@mailbox.uq.edu.au

For further details watch the CTPM web page (http://www.ctpm.uq.edu.au)

XIVth INTERNATIONAL PLANT PROTECTION CONGRESS
Plant Protection Towards the Third Millennium
Where Chemistry Meets Ecology
Jerusalem, ISRAEL
July 25-30 1999

Details: *Myrmecia* **33**(2): 24-25
Contact:
Congress Secretariat
XIVth International Plant Protection Congress
PO Box 50006
Tel Aviv 61500
ISRAEL
Telephone: +972 3 514 0000
Fax: +972 3 514 0077 or 517 5674
Email: IPPC@Kenes.com

Orthopterists' Society International Conference
Cairns
26-30 October 1997

Details: *Myrmecia* **32**(4): 53

Informative brochure from **Dr. D.C.F. Rentz,**
CSIRO Division of Entomology,
GPO Box 1700,

Canberra, ACT, 2601,
Australia,
Email: daver@ento.csiro.au.

THE ENTOMOLOGICAL CLUB CONFERENCE
3-5 September 1997
The University of Reading
United Kingdom
Under the auspices of
the Royal Entomological Society
INSECTS AND BIRDS

Details: *Myrmecia* **33**(1): 23
Contact:
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School of Plant Sciences
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READING, Berkshire
RG6 6AS
United Kingdom
Phone: (0) 118 931 8071
Fax: (0) 118 9750 630
Email: h.f.vanemden@reading.ac.uk

THE OTHER 99%

The Conservation and Biodiversity of Invertebrates
Australian Museum, Sydney
9-12 December 1997

Details: *Myrmecia* **32**(3): 27
Mailing address and further details:
Australian Museum
Invertebrate Biodiversity Conference
6 College St
Sydney NSW 2000
Fax: 02 9320 6050
Email: invert@amsg.Austmus.oz.au

Xth INTERNATIONAL CONGRESS OF ACAROLOGY
6-10 July 1998
Canberra, Australia

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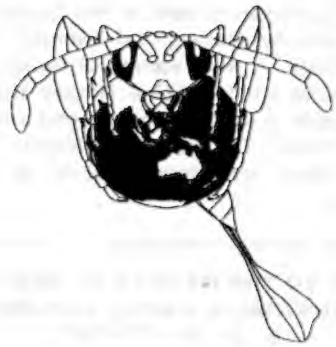

Fourth Conference of the International Society of Hymenopterists.
Canberra, AUSTRALIA
6-11 January 1999

Details: *Myrmecia* **32**(1): 28
The Conference address and contact is:
4th Conference of the International Society of Hymenopterists,
c/o CSIRO, Division of Entomology,
P.O. Box 1700
Canberra, ACT 2601
AUSTRALIA
fax: 61-6-246.4264
email: iann@ento.csiro.au.

NEW PUBLICATIONS

"Common Venomous Animals in Tasmania. A guide to their identification, habitat, venom effects and first aid" by Louise McGowan and Paul Pielage (1996). Published by the Queen Victoria Museum and Art Gallery, 54pp, 26 colour photographs. ISBN 0 7246 4319 2.

This book aims to answer the most commonly asked questions about some of the many venomous animals found in Tasmania. Information about what they look like, where they are found, how poisonous they are and what first aid treatment can be used is presented.

Copies are available ($14.95 + $4.00 p&h) from:
The Museum Shop
Queen Victoria Museum and Art Gallery
Wellington St
Launceston, Tas 7250
Phone: 03 6331 6777
Fax: 03 6334 5230

"Biogeography of Northeast Tasmania" Papers from the Symposium held at the Queen Victoria Museum and Art Gallery, 4-6 February 1995 are now available. A wide variety of topics covering Earth Science and Land Use, Botany and Zoology were included in the Symposium and are included in this volume. Copies are available from the Museum Shop (see details above) at $25.00 + $4.00 p&h.

A GUIDE TO THE GENERA OF BEETLES OF SOUTH AUSTRALIA. PART 7. CERAMBYCIDAE
by Eric MATTHEWS

Part 7 of this series is now available and covers the longicorns, which have 85 genera and approximately 200 species in South Australia. As in previous parts, the pictorial key format is used for the genera. In addition, there are diagrams of pigmentation patterns to help identify the 16 species of *Phoracantha* and five species of *Rhytiphora* which occur in the State, plus notes on colour patterns in some other species. One hundred species are illustrated by photographs and drawings. There is a list of South Australian host plant genera matched with the longicorn parasites known to attack them.

Price: $AU 12.95 plus $2.50 p&h (Australia).
Orders:
South Australian Museum Shop
North Terrace
Adelaide SA 5000
Telephone: (08) 8207 7370
Fax: (08) 8207 7651

"MICROCOSMOS"
A surprisingly entertaining, visually stunning treat.

This spellbinding film, the surprise hit of Cannes 1996, explores the microscopic world of an array of insects living in a meadow in the French countryside. A year's preparation, three year's filming, six months editing to create the most unusual of film spectaculars. Each subject is filmed at insect height, as the audience is taken into flowers, under a carpet of dead leaves, and to the most secret of antheap galleries. The extraordinary photography and brilliant music make this film a captivating experience.

Released in Australia by Newvision Films, "Microcosmos" has been playing in the major cities since March and will be moving into regional centres in September. It will also be released on video during 1998 - Look out for it!

BOOK REVIEW
Pests of Pome and Stone Fruit and their Predators and Parasitoids - a pocket guide.
Mali B. Malipatil, Alison K. Medhurst, Vicki I. Bates and David G. Williams (1996). Agriculture Victoria 95 pp + 146 colour photos. Cost $25.

Yes we now have a field guide for two important crop groups (ie pome and stone fruit) that will be invaluable in this era of IPM-based management practices. Reminiscent of Peter Room's "Insect and Spiders of Cotton Fields", this small, "pocket-size" volume is packed with useful graphics, keys and general information on pests, predators and parasitoids that are encountered in these crops. Most exciting is the fact that all this information has been packaged for use in the field, not to be left on the shelf to gather dust over the years.

The content and presentation of the publication is high quality, reflecting the level of planning that has gone into its preparation. The spiral binding and the laminate-finished pages ensure this work will last, travel and be useful in the field.

The guide presents a series of 12 keys allowing the user to attempt to identify the cause of the

problem from damage, taxonomic group or insect life stages etc. The user is also provided with concise information, graphic and text, on the seasonality, size, appearance, type of damaged caused etc of insects and mites. It really is a portable information system!

The index is comprehensive and cross-referenced to relevant keys. The team of authors has made the use of this publication easier by including a guide for use of the photograph pages. This attention to detail probably explains the appeal the publication already has as a tool for use in training as well as extension.

Often these publications prove limited in their appeal as they relate too specifically to a particular geographic region or crop system. This booklet does not fall into this category and will prove useful for other related horticultural crops. It might explain the positive response to this publication and why the print run has already been extended.

John MACDONALD and Graham THWAITE
Orange Agricultural Institute

NOTICES

THREATENED SPECIES CONSERVATION ACT
Listing of species, Populations, Communities and Key Threatening Processes by the Scientific Committee

The Threatened Species Conservation Act 1995 provides for the listing of threatened species, populations, ecological communities and key threatening processes. In NSW, the assessment of species etc for inclusion in the Schedules of the Act is undertaken by the NSW Scientific Committee, an independent body of scientists from various government agencies and professional societies. The Act encourages community involvement in the nomination process. Any person may make a nomination and community input on proposed changes to the Schedules is sought through public display of preliminary determinations. We would like to invite nominations from you for additions, deletions or amendments to the Schedules for any taxa for which information is available. To date, the Committee has made final determinations regarding the listing of 22 species, 3 populations and 2 endangered ecological communities. Proposals to list some key threatening processes are currently under consideration.

If you would like more detailed information regarding the Committee or more information on any of the following, please contact the Committee's Executive Officer, **Sue Chate** on (02) 9585 6940:

- Species and populations added recently to the Schedules of the Act
- The nomination process
- Nomination forms for species, populations, communities and key threatening processes
- Preliminary determinations currently on exhibition
- Copies of final determinations

Dr **Chris DICKMAN**
Chairperson
NSW Scientific Committee

SOCIETY OF AUSTRALIAN SYSTEMATIC BIOLOGISTS

A new Society has been formed in Australia to represent and foster the interests of systematics and systematists. It encompasses the broad interests and activities of those working in the areas of taxonomy, phylogenetics, biogeography and evolutionary biology, of all groups of organisms and with specific reference to the Australasian Region. The Society operates only by email and has NO MEMBERSHIP FEES. To join please send your Full Name, Postal Address, Taxon group/Interests, E-mail Address, Phone No. and Fax No., to the Society's Secretary, Dr David Morrison (davidm@bio.uts.edu.au).

Details about the Society and its inaugural Conference, to be held in Adelaide 29 Sept - 3rd October 1997, can be found on the Society's Home page (http://www.science.uts.edu.au/sasb/)

CSIRO JOURNALS CONCESSIONAL PRICES

Any member who is <u>not</u> getting CSIRO journals at concessional prices and who would like to, please contact:

Tracey Lockwood
Subscriptions Officer
CSIRO Publishing
PO Box 1139
Collingwood Vic 3066
Phone: 1800 626 420
Fax: 03 9662 7555
Email: info@publish.csiro.au

THE AUSTRALIAN ENTOMOLOGICAL SOCIETY INC.

FORM OF NOMINATION FOR MEMBERSHIP

To be returned to:
Dr D.E. Walter, AES Secretary, c/o Dept. of Entomology
University of Queensland, QLD 4072

We the undersigned

Proposer: . . . . . (print name here) . . . . . (signature)

Seconder: . . . . . (print name here) . . . . . (signature)

being financial members of the Society, propose the following for membership of The Australian Entomological Society Inc.:

Title . . Initials . . Given Name . . . . . Family Name . . . . . .

of (Address): . . . . . .

. . . . . .

Tel: . . . . . Fax: . . . . . .

Email: . . . . . Degrees, etc: . . . . . .

Occupation or Appointment: . . . . . .

Interests, experience, and publications in entomology for publication in the News Bulletin *Myrmecia* (please attach brief resumé):

I accept nomination and undertake if elected to abide by the rules of the Society, and to pay annual subscriptions by the date prescribed.

Signature: . . . . . **Date:** . . . . . .

For **1996**, new student/retired members - $25.00; new full members - $55.00. **Payment with nomination required.** (NB. These rates only apply for new memberships.

. . . . . .

(EXECUTIVE USE ONLY)

Nom. received: . . . . . Nom. considered at meeting: . . . . . .

Payment received: . . . . . Elected at meeting: . . . . . .

Membership type: . . . . . Applicant advised: . . . . . .

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